ORDER NO. AED9707007

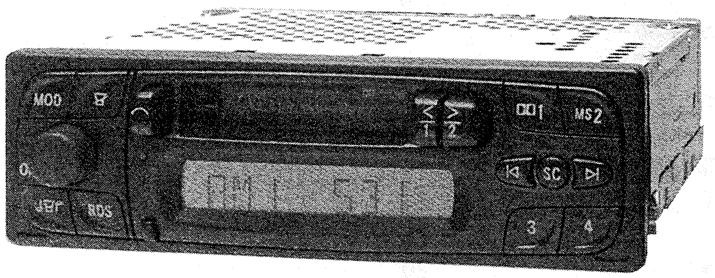
Service Manual

AUTOMOTIVE ELECTRONICS

Mercedes-Benz

VEHICLE	DESTINATION	PRODUCED AFTER	MERCEDES-BENZ PART NO.	MATSUSHITA MODEL NO.
Mercedes-Benz	Europe	July., 1997	A168 820 0186	CQ-LP3720L

AM/FM/WB MPX ELECTRONIC TUNING RADIO with Stereo Cassette Tape Player



Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol DD are trade marks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS*

Power Supply : DC 12V Negative Ground, Test Voltage 13.2V
Current Consumption : Less than 2.0A
Maximum Power Output : 15W × 4ch

AM Radio
Frequency Range : 531kHz ~ 1,620 kHz
Usable Sensitivity : 25dB (μV)
Seek Selectivity : 30dB (μV)

FM Radio
Frequency Range : 87.5 ~ 108.0 MHZ
Stereo Spearation : 39dB
Usable Selectivity : 8dB (μV)
Seek Sensitivity : 28dB (μV)

Tape Player ***
Reproduction System : 4-Track, 2-Program Stereo
Tape Speed : 1-7/8" (4.76 cm/sec)
Wow and Flutter : 0.5% (WRMS)
Stereo Separation : 60dB
S/N : 55dB

Dimensions ** : 178 mm × 160mm × 50mm
Weight ** : 1.4 kg

*Specifications subject to change without notice.
**Dimensions and Weight shown are approximate.
***C-120 tape is not recommended to use.

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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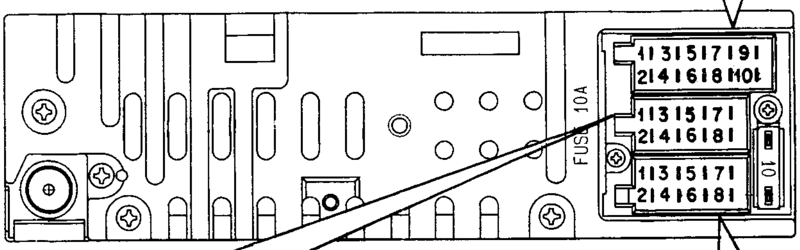
FEATURES

- PLL (Phase Locked Loop) synthesizer tuning.
- 20-station preset.
  (4-FM1, 4-FM1-RDS, 4-FM2, 4-FM2-RDS, 4-AM)
- RDS receive function.
- Dolby B NR function.
- Electronic audio control.
- GAL function.
- Removable Face Plate.

REAR VIEW AND CONNECTORS

— I. External Control Connector —

1.~10. No Connection



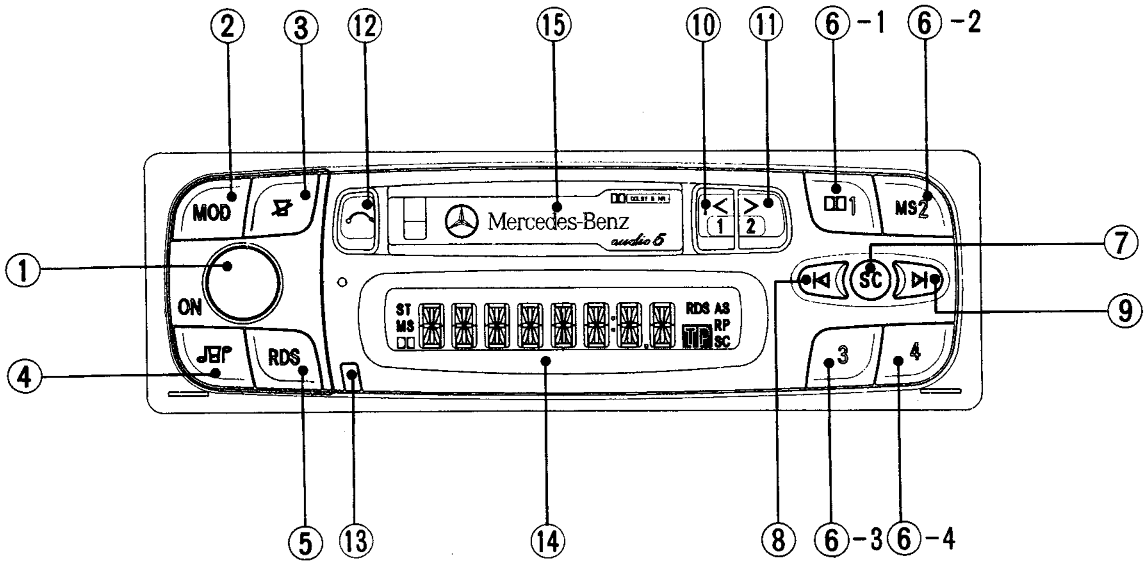
— II. Speaker Connector —

1. Rear Speaker, Right ⊕
2. Rear Speaker, Right ⊖
3. Front Speaker, Right ⊕
4. Front Speaker, Right ⊖
5. Front Speaker, Left ⊕
6. Front Speaker, Left ⊖
7. Rear Speaker, Left ⊕
8. Rear Speaker, Left ⊖

— III. Power Connector —

1. Tel. Audio Input
2. Motor Antenna ⊕
3. Tel. Mute
4. Power Supply, ⊕B
5. Power Supply, ANT ⊕
6. Dimmer Control
7. S-Contact
8. Ground

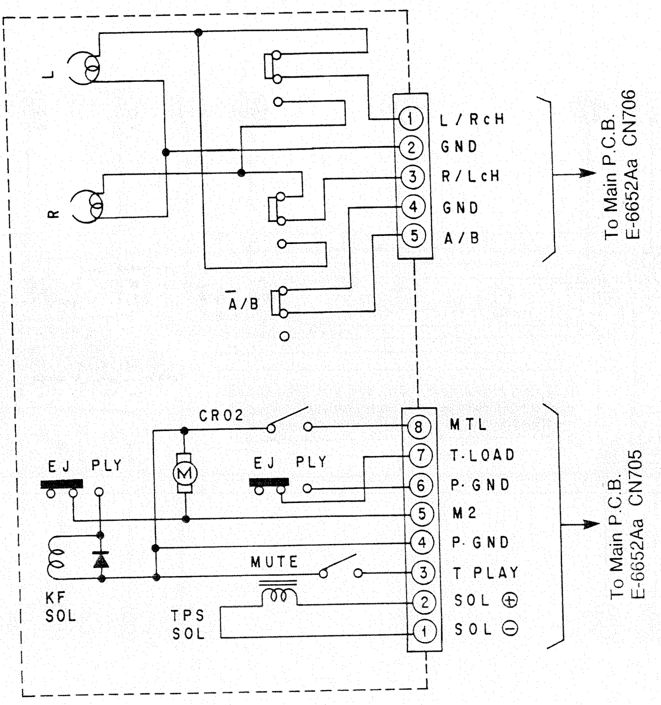
NAME AND FUNCTION OF EACH PARTS

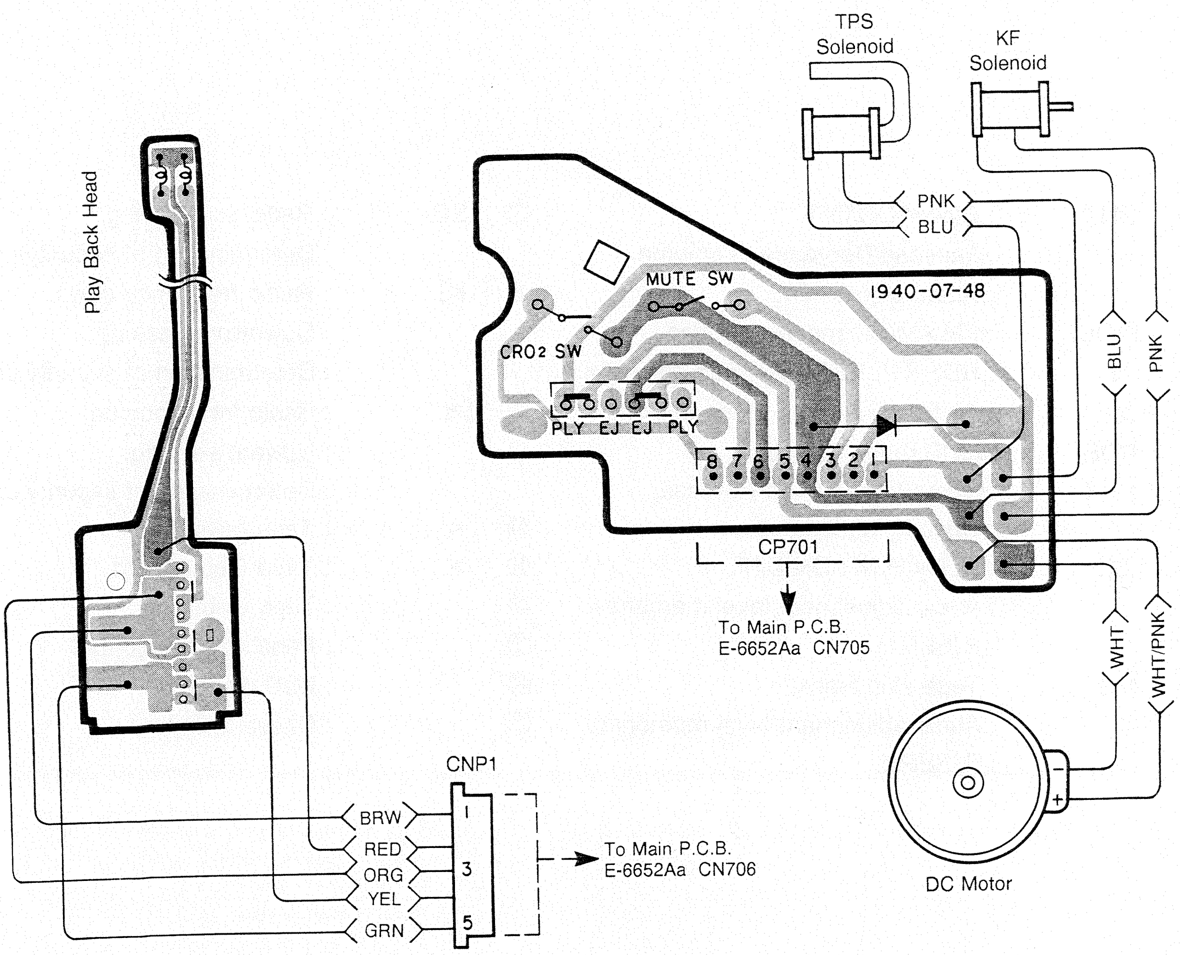

②
③
⑫
⑮
⑩
⑪
⑥-1
⑥-2
①
⑦
⑨
④
⑤
⑬
⑭
⑧
⑥-3
⑥-4
MOD
ON
RDS
Mercedes-Benz
audio 5
DOLBY B NR
< 1
> 2
1
MS 2
SC
ST
MS
RDS AS
RP
SC
TP
3
4

①	ON	: Power ON/OFF. : Increase/Decrease of volume. : Audio adjustment.
②	MOD	: FM/AM/CC mode selection.
③	⧖	: RDS-TP, RDS-TA mode selection.
④	♩ΒΓ	: Audio adjustment mode selection.
⑤	RDS	: RDS mode selection.
⑥	1~4	: Radio frequency preset/call. : Security code input.
⑥-1	◻◻	: Dolby B NR ON/OFF. : Audio adjustment level memories. (USER1)
⑥-2	MS	: Tape skip blank. : Audio adjustment level memories. : (USER2)

⑦	SC	: Radio scan tuning. : Determination of security code.
⑧	⧏	: Radio frequency down. : Downward seeking. : Determination of security code.
⑨	⧐	: Radio frequency up. : Upward seeking. : Determination of security code.
⑩	<	: Tape rewind.
⑪	>	: Tape fast-forward.
⑫		: Tape eject.
⑬		: Panel release button.
⑭		: LCD display.
⑮		: Cassette slot.

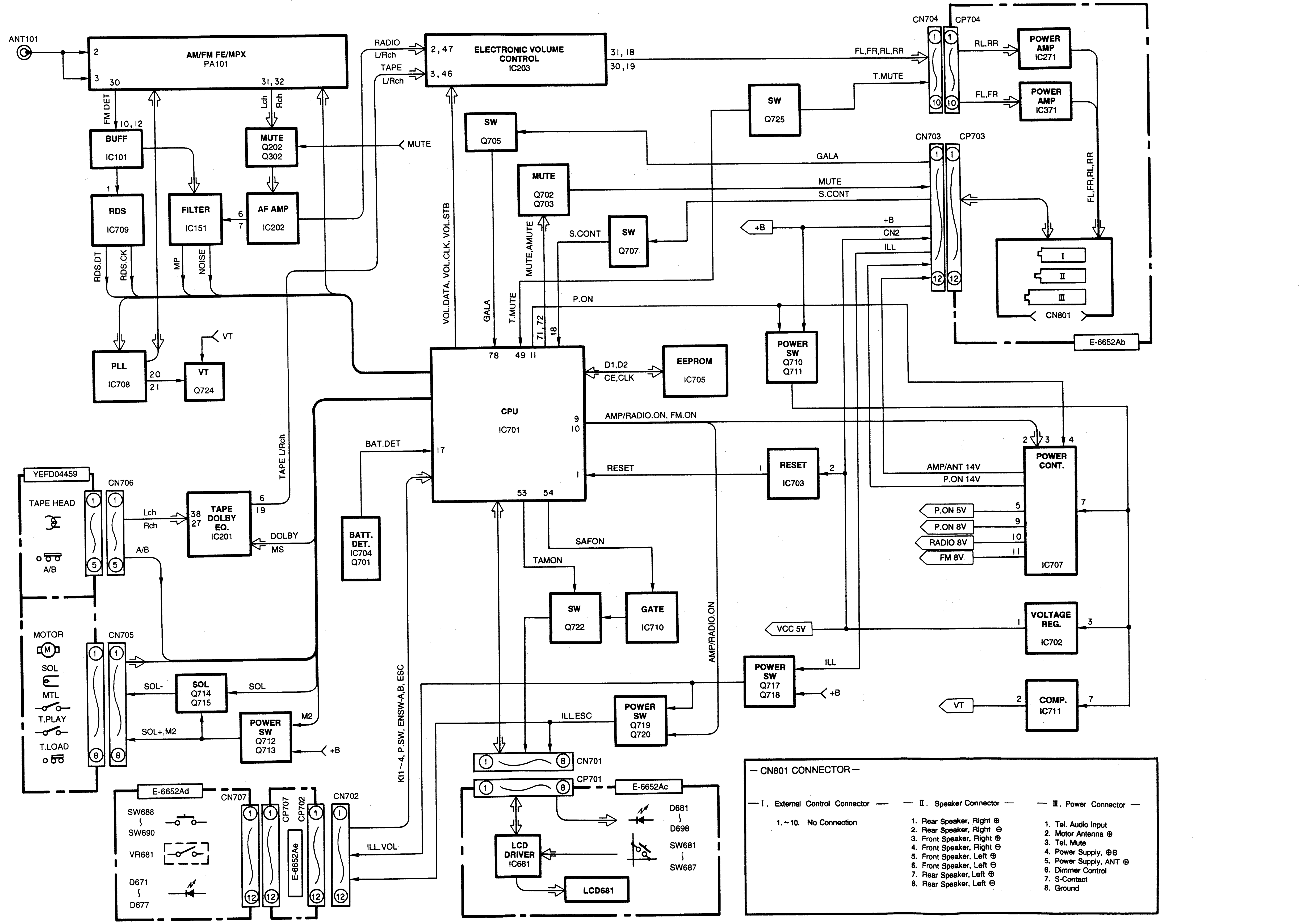
SCHEMATIC / WIRING DIAGRAM (Tape Block) MODEL CQ-LP3720L


L
R
① L/RcH
② GND
③ R/LcH
④ GND
⑤ A/B
A/B
To Main P.C.B.
E-6652Aa CN706
CRO2
EJ PLY
EJ PLY
M
MUTE
KF
SOL
TPS
SOL
⑧ MTL
⑦ T·LOAD
⑥ P·GND
⑤ M2
④ P·GND
③ T PLAY
② SOL ⊕
① SOL ⊖
To Main P.C.B.
E-6652Aa CN705


TPS
Solenoid
KF
Solenoid
PNK
BLU
Play Back Head
MUTE SW
1940-07-48
CRO2 SW
PLY EJ EJ PLY
8 7 6 5 4 3 2 1
BLU
PNK
CP701
To Main P.C.B.
E-6652Aa CN705
WHT
WHT/PNK
CNP1
BRW
RED
ORG
YEL
GRN
1
3
5
To Main P.C.B.
E-6652Aa CN706
DC Motor
+

AM/FM/WB MPX ELECTRONIC TUNING RADIO
with Stereo Cassette Tape Player

BLOCK DIAGRAM MODEL CQ-LP3720L


ANT101
AM/FM FE/MPX
PA101
2
3
30
31, 32
FM DET
10, 12
BUFF
IC101
Lch
Rch
MUTE
Q202
Q302
MUTE
AF AMP
IC202
RDS
IC709
FILTER
IC151
6
7
RDS.DT
RDS.CK
MP
NOISE
PLL
IC708
20
21
VT
Q724
VT
RADIO
L/Rch
TAPE
L/Rch
2, 47
3, 46
ELECTRONIC VOLUME CONTROL
IC203
31, 18
30, 19
FL,FR,RL,RR
T.MUTE
SW
Q725
SW
Q705
VOL.DATA, VOL.CLK, VOL.STB
GALA
MUTE
Q702
Q703
MUTE.AMUTE
T.MUTE
S.CONT
SW
Q707
GALA
MUTE
S.CONT
+B
+B
CN2
ILL
P.ON
CN704
CP704
CN703
CP703
RL,RR
FL,FR
POWER AMP
IC271
POWER AMP
IC371
FL,FR,RL,RR
I
II
III
CN801
E-6652Ab
78
49
11
71, 72
18
CPU
IC701
D1,D2
CE,CLK
EEPROM
IC705
POWER SW
Q710
Q711
AMP/RADIO.ON, FM.ON
9
10
17
1
53
54
BAT.DET
BATT. DET.
IC704
Q701
RESET
IC703
RESET
2
AMP/ANT 14V
P.ON 14V
POWER CONT.
IC707
2
3
4
5
9
10
11
7
P.ON 5V
P.ON 8V
RADIO 8V
FM 8V
TAPE L/Rch
YEFD04459
TAPE HEAD
A/B
CN706
Lch
Rch
A/B
38
27
TAPE DOLBY EQ.
IC201
6
19
DOLBY
MS
SAFON
TAMON
SW
Q722
GATE
IC710
AMP/RADIO.ON
VOLTAGE REG.
IC702
VCC 5V
1
3
POWER SW
Q717
Q718
ILL
+B
COMP.
IC711
VT
2
7
MOTOR
SOL
MTL
T.PLAY
T.LOAD
CN705
SOL-
SOL
Q714
Q715
SOL
SOL+,M2
POWER SW
Q712
Q713
M2
+B
KI1~4, P.SW, ENSW-A.B, ESC
ILL.ESC
POWER SW
Q719
Q720
CN701
CP701
E-6652Ac
E-6652Ad
SW688
SW690
VR681
D671
D677
CN707
CP707
CP702
E-6652Ae
CN702
ILL.VOL
LCD DRIVER
IC681
LCD681
D681
D698
SW681
SW687
1
5
8
12

– CN801 CONNECTOR –

— I. External Control Connector —

1.~10. No Connection

— II. Speaker Connector —

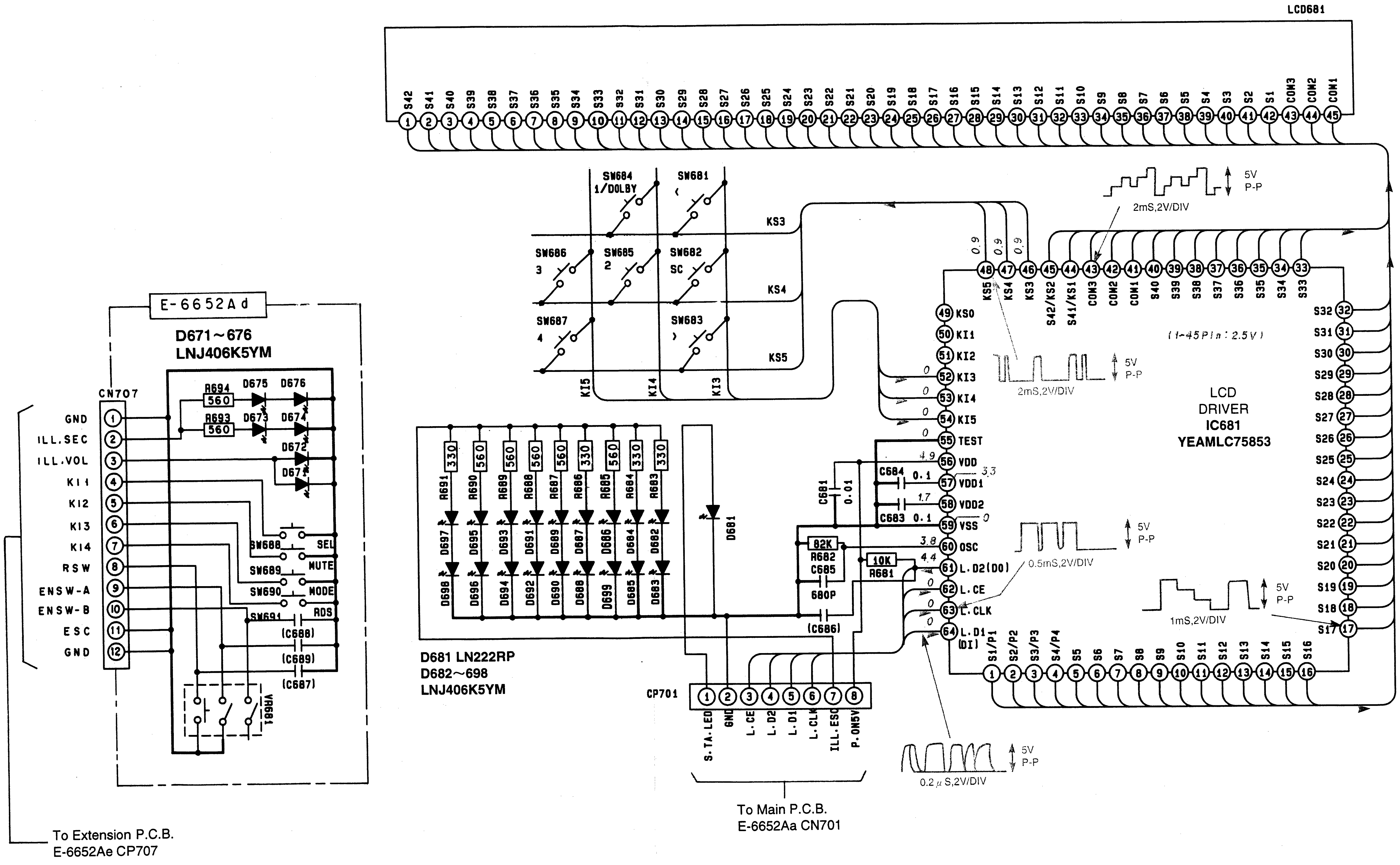
1. Rear Speaker, Right ⊕
2. Rear Speaker, Right ⊖
3. Front Speaker, Right ⊕
4. Front Speaker, Right ⊖
5. Front Speaker, Left ⊕
6. Front Speaker, Left ⊖
7. Rear Speaker, Left ⊕
8. Rear Speaker, Left ⊖

— III. Power Connector —

1. Tel. Audio Input
2. Motor Antenna ⊕
3. Tel. Mute
4. Power Supply, ⊕B
5. Power Supply, ANT ⊕
6. Dimmer Control
7. S-Contact
8. Ground

AM/FM/WB MPX ELECTRONIC TUNING RADIO with Stereo Cassette Tape Player

SCHEMATIC DIAGRAM (Display Block) MODEL CQ-LP3720L


LCD681
S42 S41 S40 S39 S38 S37 S36 S35 S34 S33 S32 S31 S30 S29 S28 S27 S26 S25 S24 S23 S22 S21 S20 S19 S18 S17 S16 S15 S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 COM3 COM2 COM1
SW684 1/DOLBY
SW681 (
SW686 3
SW685 2
SW682 SC
SW687 4
SW683)
KS3
KS4
KS5
KI5
KI4
KI3
E-6652Ad
D671~676
LNJ406K5YM
CN707
GND
ILL.SEC
ILL.VOL
KI1
KI2
KI3
KI4
RSW
ENSW-A
ENSW-B
ESC
GND
R694 560
R693 560
D675 D676
D673 D674
D672
D671
SW688 SEL
SW689 MUTE
SW690 MODE
SW691 RDS
(C688)
(C689)
(C687)
VR681
R691 330
R690 560
R689 560
R688 560
R687 560
R686 330
R685 560
R684 330
R683 330
D697 D695 D693 D691 D689 D687 D686 D684 D682
D698 D696 D694 D692 D690 D688 D699 D685 D683
D681
C681 0.01
C684 0.1
C683 0.1
82K R682
C685 680P
10K R681
(C686)
CP701
S.TA.LED GND L.CE L.D2 L.D1 L.CLK ILL.ESC P.ON5V
KS0 KI1 KI2 KI3 KI4 KI5 TEST VDD VDD1 VDD2 VSS OSC L.D2(DO) L.CE L.CLK L.D1 (DI)
KS5 KS4 KS3 S42/KS2 S41/KS1 COM3 COM2 COM1 S40 S39 S38 S37 S36 S35 S34 S33
S32 S31 S30 S29 S28 S27 S26 S25 S24 S23 S22 S21 S20 S19 S18 S17
S1/P1 S2/P2 S3/P3 S4/P4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16
LCD DRIVER IC681 YEAMLC75853
(1~45Pin : 2.5V)
0.9 0.9 0.9
0 0 0 0
4.9 3.3 1.7 0 3.8 4.4 0 0 0
5V P-P 2mS,2V/DIV
5V P-P 2mS,2V/DIV
5V P-P 0.5mS,2V/DIV
5V P-P 1mS,2V/DIV
5V P-P 0.2μS,2V/DIV

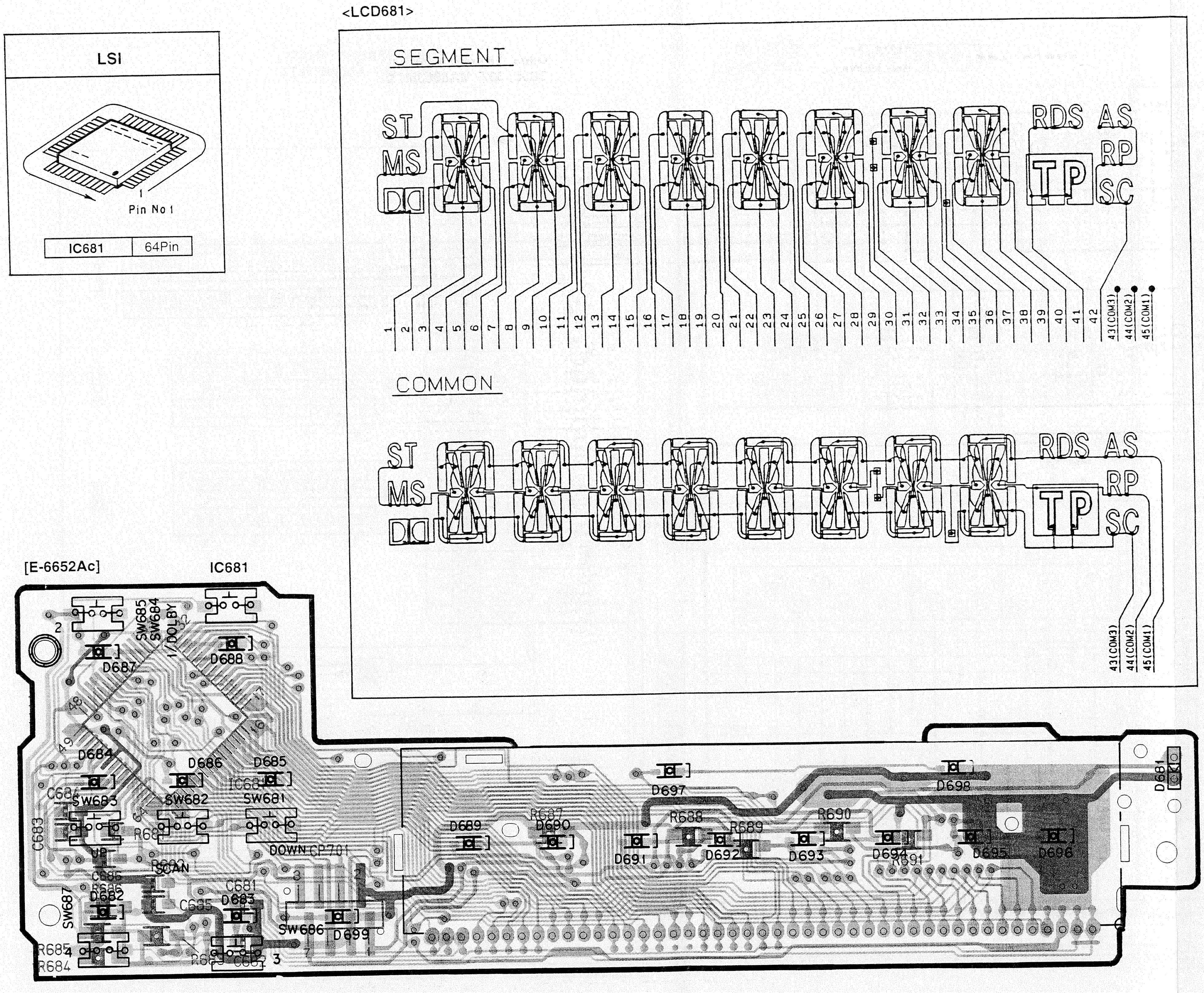
D681 LN222RP
D682~698
LNJ406K5YM

To Extension P.C.B.
E-6652Ae CP707

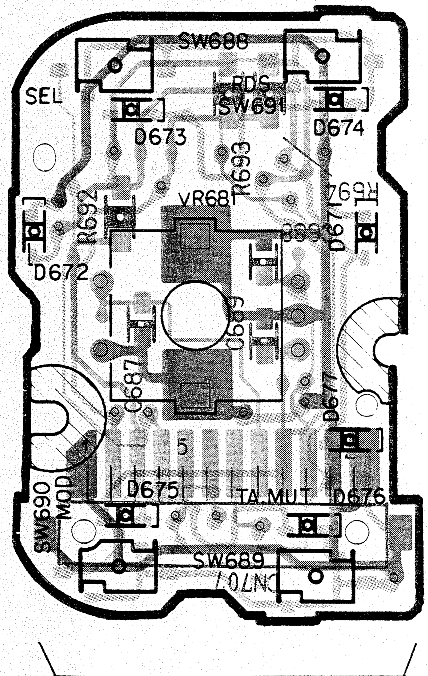
To Main P.C.B.
E-6652Aa CN701

AM/FM/WB MPX ELECTRONIC TUNING RADIO with Stereo Cassette Tape Player

WIRING DIAGRAM (Display Block) MODEL CQ-LP3720L

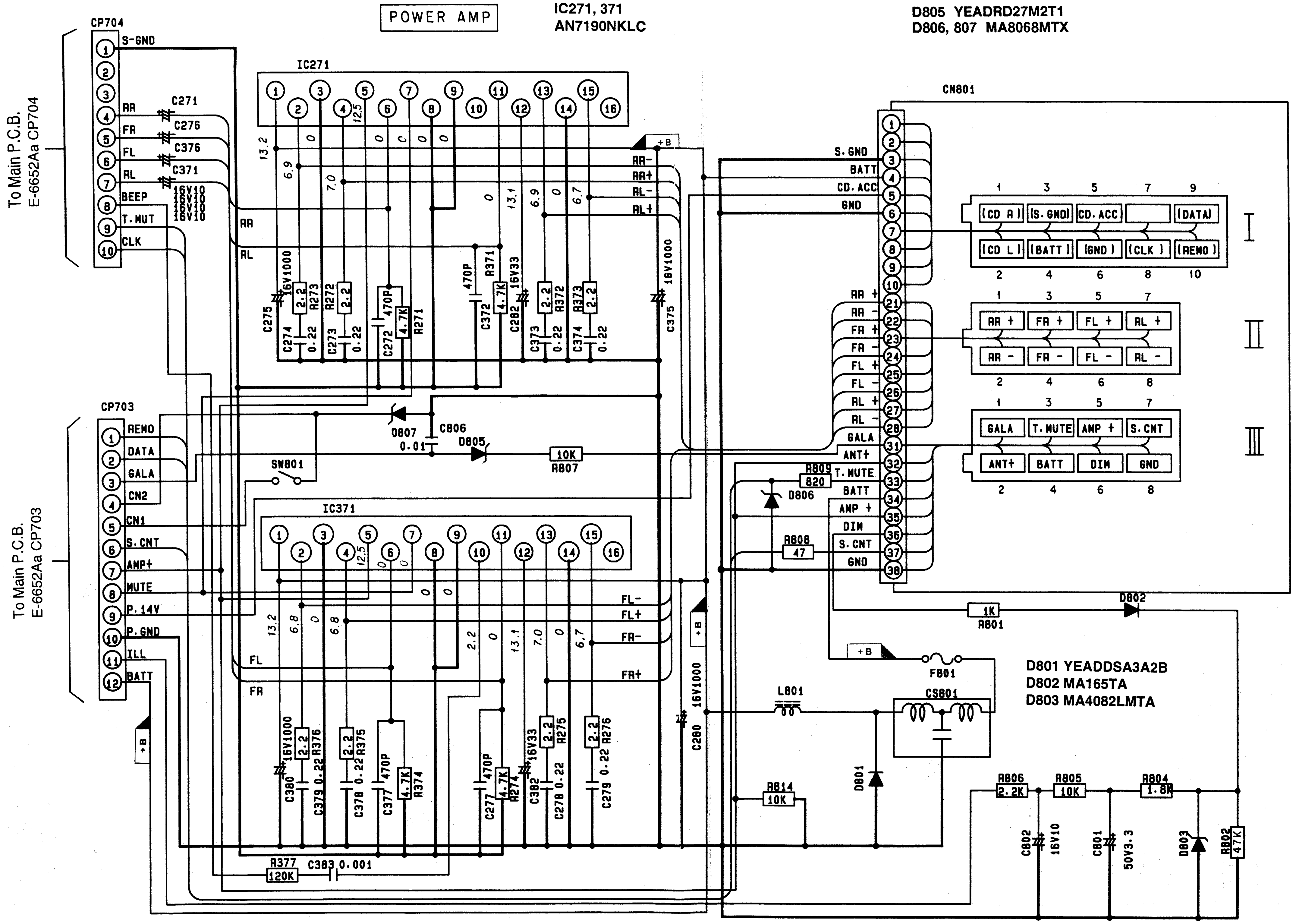

LSI
1
Pin No 1
IC681
64Pin
<LCD681>
SEGMENT
ST
MS
RDS
AS
RP
TP
SC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43(COM3)
44(COM2)
45(COM1)
COMMON
ST
MS
RDS
AS
RP
TP
SC
43(COM3)
44(COM2)
45(COM1)
[E-6652Ac]
IC681
2
SW685
SW684
1/DOLBY
D687
D688
48
49
D684
D686
D685
IC681
C684
SW683
SW682
SW681
C683
DOWN
CP701
SCAN
C686
R686
D682
C681
C685
D683
SW687
3
SW686
D699
R685
R684
R683
C682
4
D697
D698
D681
D689
R687
D690
R688
R689
R690
D691
D692
D693
D694
R691
D695
D696

To Main P.C.B.
E-6652Aa CN701


[E-6652Ad]
SW688
SEL
RDS
SW691
D673
D674
R693
VR681
R692
R694
D672
C689
D671
C687
D677
5
D675
TA
MUT
D676
SW690
MOD
SW689
CN707

To Volume P.C.B.
E-6652Ad CN707

SCHEMATIC DIAGRAM (AMP Block) MODEL CQ-LP3720L



IC271, 371
AN7190NKLC

D805 YEADRD27M2T1
D806, 807 MA8068MTX

D801 YEADDSA3A2B
D802 MA165TA
D803 MA4082LMTA

POWER AMP
CP704
S-GND
RR
FR
FL
RL
BEEP
T.MUT
CLK
C271
C276
C376
C371
16V10
To Main P.C.B.
E-6652Aa CP704
IC271
C275
16V1000
C274
C273
C272
R273
R272
R271
470P
4.7K
2.2
0.22
C372
R371
C282
16V33
C373
C374
R372
R373
C375
RR-
RR+
RL-
RL+
+B
CP703
REMO
DATA
GALA
CN2
CN1
S.CNT
AMP+
MUTE
P.14V
P.GND
ILL
BATT
To Main P.C.B.
E-6652Aa CP703
D807
C806
0.01
D805
SW801
10K
R807
IC371
FL-
FL+
FR-
FR+
FL
FR
C380
C379
C378
C377
R376
R375
R374
C277
R274
C382
C278
C279
R275
R276
C280
16V1000
R377
120K
C383 0.001
CN801
S.GND
BATT
CD.ACC
GND
RR +
RR -
FR +
FR -
FL +
FL -
RL +
RL -
GALA
ANT+
T.MUTE
BATT
AMP +
DIM
S.CNT
GND
R809
820
D806
R808
47
CD R
S.GND
CD.ACC
DATA
CD L
BATT
GND
CLK
REMO
I
II
III
RR +
FR +
FL +
RL +
RR -
FR -
FL -
RL -
GALA
T.MUTE
AMP +
S.CNT
ANT+
BATT
DIM
GND
1K
R801
D802
F801
L801
CS801
D801
R814
10K
R806
2.2K
R805
10K
R804
1.8K
C802
16V10
C801
50V3.3
D803
R802
47K

<Main Block>

■ IC701 YEAMH8339F01

Pin No.	Port	Descriotion	I/O	Vol.(V)
1	/RES	Reset input	I	5.3
2	XTAL	Crystal ocsillator	—	2.0
3	ETAL	Crystal ocsillator	—	1.3
4~7	—	(Connecting to VCC)	—	5.0
8	VCC	+5V power supply	—	5.0
9	AMP/RADIO.ON	AMP/Radio power control	O	5.0
10	FM.ON	FM power control	O	5.0
11	P.ON	System power control	O	4.9
12	VSS	Ground	—	0
13	KI1	Key input	I	0
14	KI2	Key input	I	0
15	KI3	Key input	I	0
16	KI4	Key input	I	0
17	BAT.DET	Battery level detection	I	4.8
18	/S.CONT	S-CONT input	I	4.5
19	/P.SW	Power switch input	I	4.5
20	CN2	CD changer detection	I	0
21	LCD.CE	LCD driver chip enable	I	0
22	LCD.CLK	LCD clock	I	0
23	LCD.D1	LCD data input	I	0

Pin No.	Port	Descriotion	I/O	Vol.(V)
24	LCD.D2	LCD data output	O	4.8
25	ENSW-A	Encoder A input	I	0
26	ENSW-B	Encoder B input	I	5.1
27	ESC	Escutcheon detection	I	0
28	RDS.CLK	RDS clock	I	2.6
29	AVCC	+5V power supply	—	5.0
30	SEL1	(Ground pull-down)	—	0
31	SEL2	(+5V pull-up)	—	2.8
32	RDS.DATA	RDS data input	I	2.5
33	AM.CONT	AM level detection	I	0.9
34	FV.CONT	FM level detection	I	0.6
35	MP	FM tuner multipass	I	0
36	NOISE	Adjustment station detection	I	0
37	ST	FM stereo detection	I	0.3
38	AVSS	Not used	—	—
39	PLL.CE	PLL chip enable	O	0
40	PLL.CLK	PLL clock	O	0
41	PLL.D1	PLL data output	O	0
42	PLL.D2	PLL data input	I	5.1
43	BEEP	Beep output	O	0

Pin No.	Port	
44	E2.CE	EEPROM chi
45	E2.CLK	EEPROM clo
46	E2.D1	EEPROM dat
47	VCC	+5V power su
48	E2.D2	EEPROM dat
49	TEL.MUT	Telephone m
50~52	N.C	(Connecting t
53	TAMON	TA mute / Se
54	SAFON	TA mute / Se
55	M2	Tape motor c
56	VSS	Ground
57	TPS.SOL	TPS solenoid
58	DOLBY	Dolby on/off c
59	MS.OUT	Tape no-soun
60	T.LOAD	Tape loading
61	T.PLAY	Tape play det
62	A/B.IN	Tape side A/E
63~65	N.C	(Connecting t
66	VOL.CLK	Electronic vol
67	VOL.DATA	Electronic vol

WIRING DIAGRAM (AMP Block) MODEL CQ-LP3720L

<CN801 CONNECTOR>

— I. External Control Connector —

1.~10. No Connection

— II. Speaker Connector —

1. Rear Speaker, Right ⊕
2. Rear Speaker, Right ⊖
3. Front Speaker, Right ⊕
4. Front Speaker, Right ⊖
5. Front Speaker, Left ⊕
6. Front Speaker, Left ⊖
7. Rear Speaker, Left ⊕
8. Rear Speaker, Left ⊖

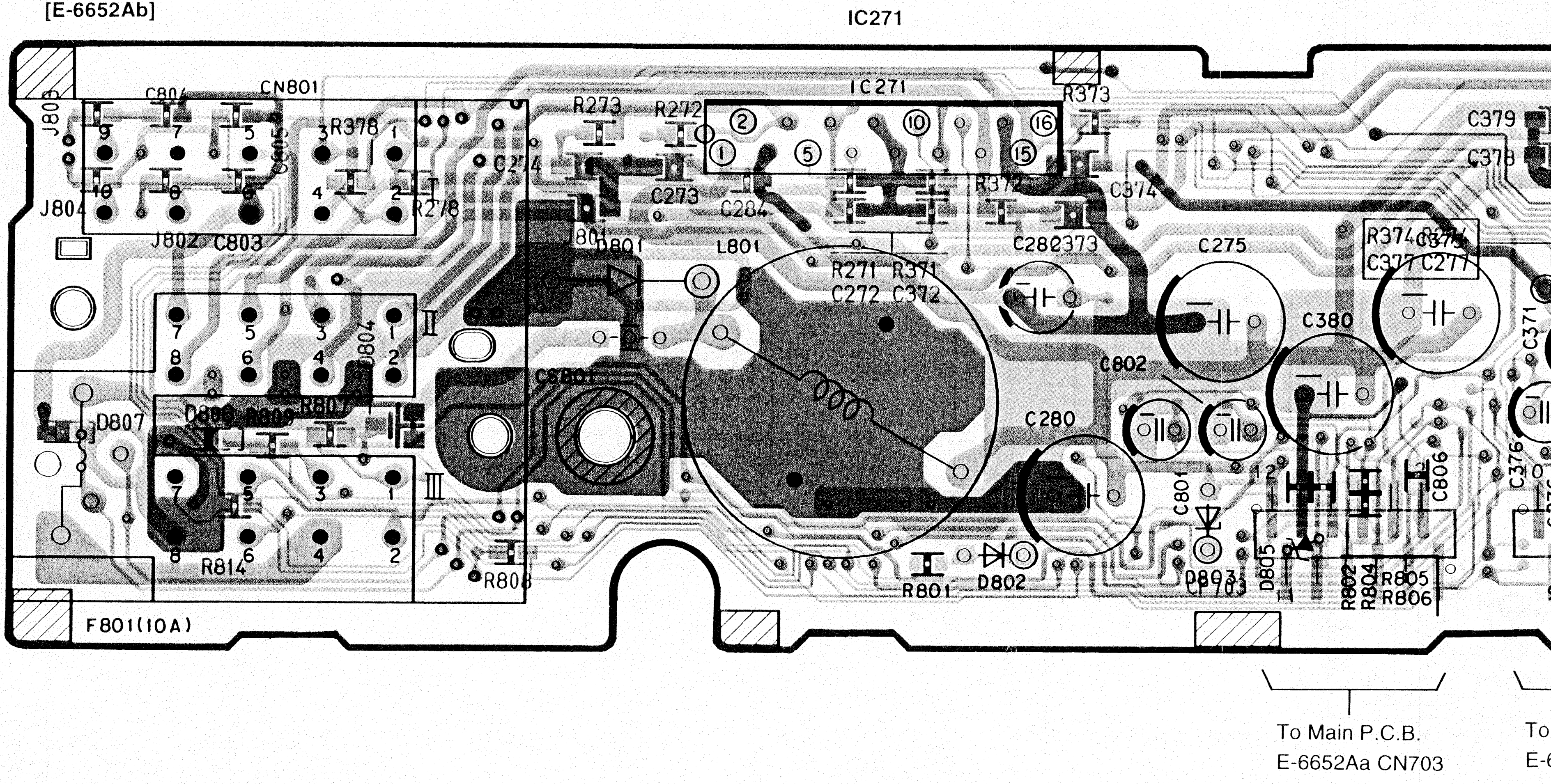
— III. Power Connector —

1. Tel. Audio Input
2. Motor Antenna ⊕
3. Tel. Mute
4. Power Supply, ⊕B
5. Power Supply, ANT ⊕
6. Dimmer Control
7. S-Contact
8. Ground

IC271			
1	13.2V	9	0V
2	6.9V	10	— V
3	0V	11	0V
4	7.0V	12	13.1V
5	12.5V	13	6.9V
6	0V	14	0V
7	0V	15	6.7V
8	0V	16	— V

1
2
3
4
5
6
7
8

[E-6652Ab]


IC271
J803
C804
CN801
R378
C805
C274
R273
R272
IC271
R373
C379
C378
J804
R278
C273
C284
R372
C374
J802
C803
J801
D801
L801
R271
R371
C272
C372
C282
C373
C275
R374
C377
C277
C380
C371
C802
C801
C280
D807
D806
D808
R807
C801
C806
C376
R814
R808
R801
D802
D803
C703
D805
R802
R804
R805
R806
F801(10A)
II
III
To Main P.C.B.
E-6652Aa CN703
To
E-6

n	I/O	Vol.(V)
	O	4.8
	I	0
	I	5.1
	I	0
	I	2.6
	—	5.0
	—	0
	—	2.8
	I	2.5
	I	0.9
	I	0.6
	I	0
n	I	0
	I	0.3
	—	—
	O	0
	O	0
	O	0
	I	5.1
	O	0

Pin No.	Port	Descriotion	I/O	Vol.(V)
44	E2.CE	EEPROM chip enable	O	0
45	E2.CLK	EEPROM clock	O	0
46	E2.D1	EEPROM data output	O	0
47	VCC	+5V power supply	—	5.0
48	E2.D2	EEPROM data input	I	0
49	TEL.MUT	Telephone mute	I	0
50~52	N.C	(Connecting to ground)	—	0
53	TAMON	TA mute / Security LED on	O	0
54	SAFON	TA mute / Security LED on	O	5.0
55	M2	Tape motor control	O	5.0
56	VSS	Ground	—	0
57	TPS.SOL	TPS solenoid control	O	0
58	DOLBY	Dolby on/off control	O	0
59	MS.OUT	Tape no-sound detection	O	3.6
60	T.LOAD	Tape loading detection	I	0
61	T.PLAY	Tape play detection	I	0
62	A/B.IN	Tape side A/B detection	I	3.9
63~65	N.C	(Connecting to ground)	À\	0
66	VOL.CLK	Electronic volume clock	O	0
67	VOL.DATA	Electronic volume data		

Pin No.	Port	Descriotion	I/O	Vol.(V)
68	VOL.STB	Electronic volume strobe	O	0
69	N.C	(Connecting to ground)	—	0
70	N.C	(Connecting to ground)	—	0
71	/MUTE	Mute output	O	5.1
72	/AF.MUTE	AF mute output	O	5.1
73	VSS	Ground	—	0
74~76	N.C	(Connecting to ground)	—	0
77	CD.REMO	Not used	—	—
78	GALA	GALA mode detection	I	3.8
79	CD.DATA	Not used	—	—
80	CD.CLK	Not used	—	—

Note :
Voltage measurements are with respect to ground, with a voltmeter (Internal resistance : 10M ohms).

■ IC681 YEAMLC758

Pin No.	Port	De
1~40	S1~40	LCD segment
41~43	COM1~3	LCD common
44, 45	S41, 42	LCD segment
46~48	KS3~5	Key scan signa
49~51	KS0~2	No connection
52~54	KI1~3	Key data input
55	TEST	(Connecting to
56	VDD	+5V power sup
57	VDD1	Ground throug
58	VDD2	Ground throug
59	Vss	Ground
60	OSC	CR oscillator
61	DO	Key data outpu
62	CE	Chip enable
63	CL	LCD clock
64	DI	LCD data input

Connector —

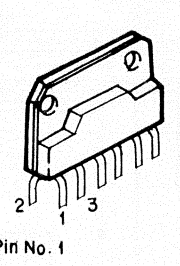
Input
enna ⊕

pply, ⊕B
pply, ANT ⊕
ontrol

IC271			
1	13.2V	9	0V
2	6.9V	10	— V
3	0V	11	0V
4	7.0V	12	13.1V
5	12.5V	13	6.9V
6	0V	14	0V
7	0V	15	6.7V
8	0V	16	— V

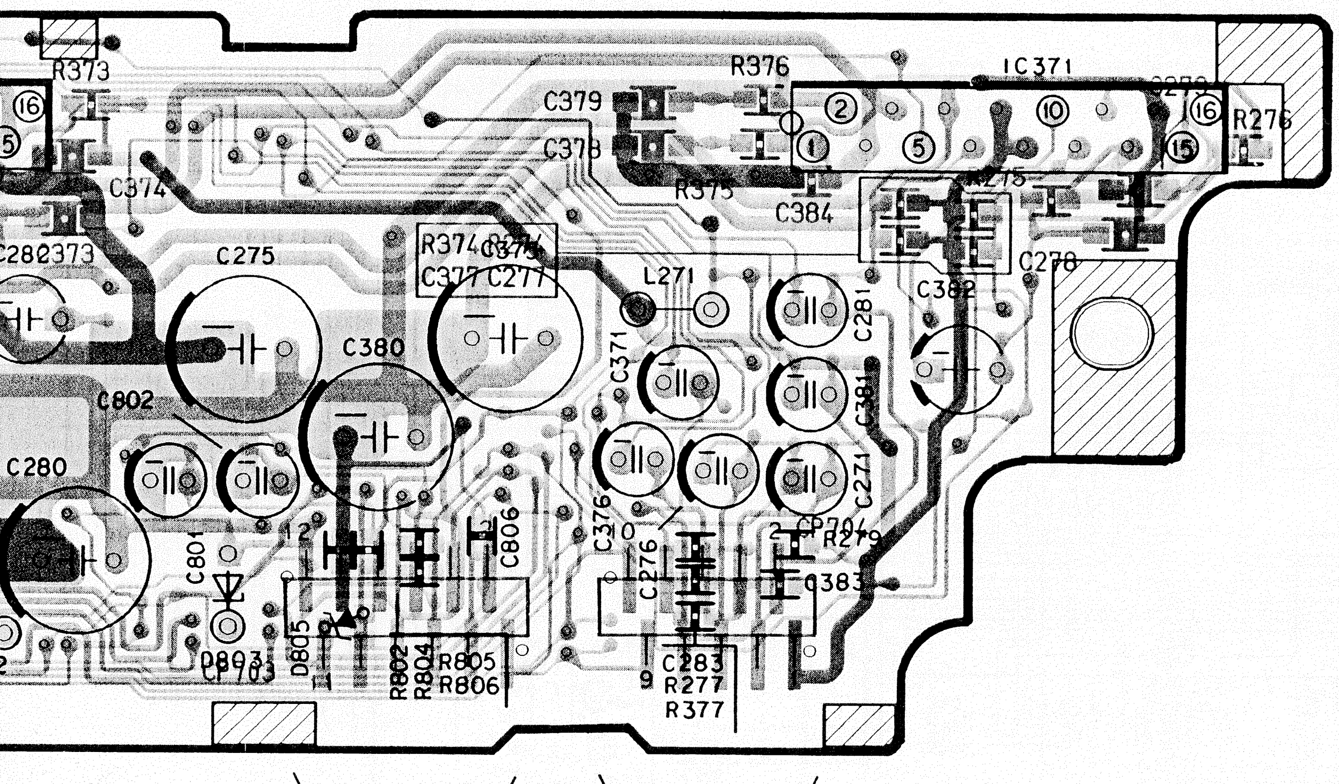
IC371			
1	13.2V	9	0V
2	6.8V	10	2.2V
3	0V	11	0V
4	6.8V	12	13.1V
5	12.5V	13	7.0V
6	0V	14	0V
7	0V	15	6.7V
8	0V	16	— V

IC



IC271	16Pin
IC371	16Pin

IC371



To Main P.C.B.
E-6652Aa CN703

To Main P.C.B.
E-6652Aa CN704

ALIGNMENT INSTRUCTIONS FO

• Power Supply Voltage :	DC 13.2V	• Bass/Treb
• Output Impedance :	4Ω	• Balance/Fa
• Output Power :	0.5W	• Dolby NR :

NOTE 1:
Do not align the AM and FM package blocks. When the pack supplied already aligned at the factory.

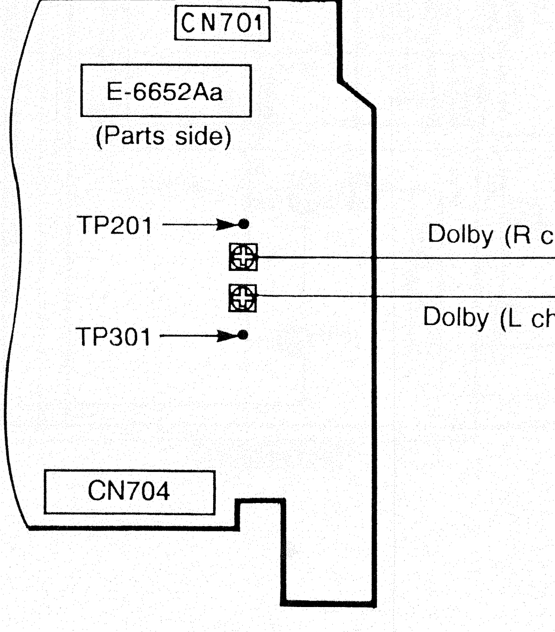
1. DOLBY NR ALIGNMENT

Step	Alignment Item	Test Tape	VTVM Connection	Adjust
①	DOLBY NR (Rch)	RFKZ0038	TP201	VR201
②	DOLBY NR (Lch)	RFKZ0038	TP301	VR301

2. HEAD AZIMUTH ALIGNMENT

- Test tape is TCC-153.
- At forward play mode, adjust Ⓕ screw only so that spea terminal level shows max value.
- At reverse play mode, adjust Ⓡ screw only so that spea terminal level shows max value.
- Then, again at forward play mode, check if or not spea terminal level still shows max value.
- If you do not have a test tape, use a tape whose recording l is than 6 kHz for head adjustment. After the above adjustm apply bonding agent to the adjustment screw.

ALIGNMENT POIN



n	I/O	Vol.(V)
	O	0
	O	0
	O	0
	—	5.0
	I	0
	I	0
	—	0
n	O	0
n	O	5.0
	O	5.0
	—	0
	O	0
	O	0
	O	3.6
	I	0
	I	0
	I	3.9
	Å\	0
	O	0

Pin No.	Port	Descriotion	I/O	Vol.(V)
68	VOL.STB	Electronic volume strobe	O	0
69	N.C	(Connecting to ground)	—	0
70	N.C	(Connecting to ground)	—	0
71	/MUTE	Mute output	O	5.1
72	/AF.MUTE	AF mute output	O	5.1
73	VSS	Ground	—	0
74~76	N.C	(Connecting to ground)	—	0
77	CD.REMO	Not used	—	—
78	GALA	GALA mode detection	I	3.8
79	CD.DATA	Not used	—	—
80	CD.CLK	Not used	—	—

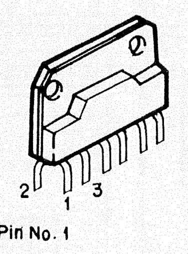
Note :
Voltage measurements are with respect to ground, with a voltmeter (Internal resistance : 10M ohms).

■ IC681 YEAMLC75853

Pin No.	Port	Description	I/O	Vol.(V)
1~40	S1~40	LCD segment output	O	2.5
41~43	COM1~3	LCD common output	O	2.5
44, 45	S41, 42	LCD segment output	O	2.5
46~48	KS3~5	Key scan signal	O	0.9
49~51	KS0~2	No connection	—	—
52~54	KI1~3	Key data input	I	0
55	TEST	(Connecting to ground)	—	0
56	VDD	+5V power supply	—	4.9
57	VDD1	Ground through capacitor	—	3.3
58	VDD2	Ground through capacitor	—	1.7
59	Vss	Ground	—	0
60	OSC	CR oscillator	—	3.8
61	DO	Key data output	O	4.4
62	CE	Chip enable	I	0
63	CL	LCD clock	I	0
64	DI	LCD data input	I	0

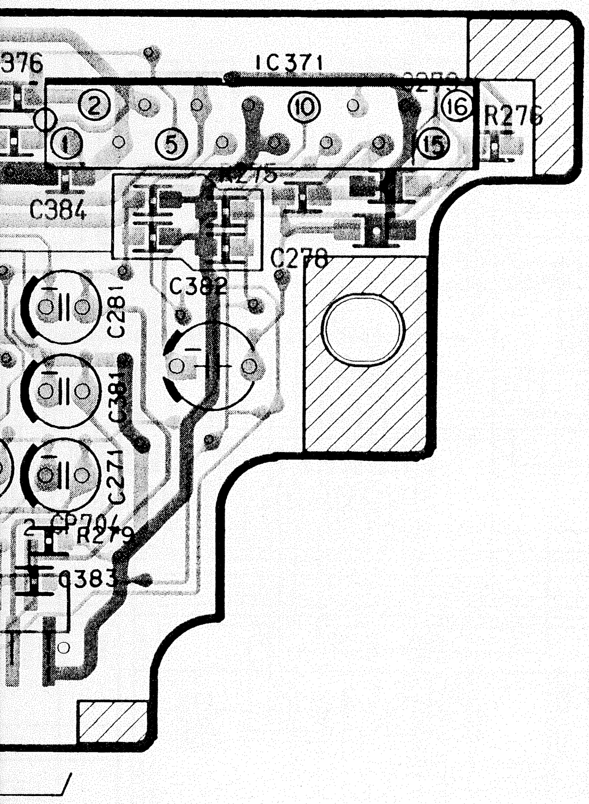
371	
9	0V
10	2.2V
11	0V
12	13.1V
13	7.0V
14	0V
15	6.7V
16	— V

IC



IC271	16Pin
IC371	16Pin

IC371



C.B.
CN704

Stereo Cassette Tape Player

ALIGNMENT INSTRUCTIONS FOR DOLBY NR

- Power Supply Voltage : DC 13.2V
- Output Impedance : 4Ω
- Output Power : 0.5W
- Bass/Treb Control : Center
- Balance/Fader Control : Center
- Dolby NR : OFF

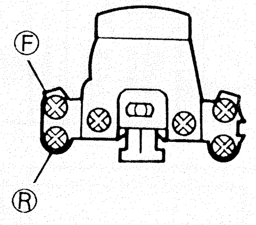
NOTE 1:
Do not align the AM and FM package blocks. When the package block is necessary, it will be supplied already aligned at the factory.

1. DOLBY NR ALIGNMENT

Step	Alignment Item	Test Tape	VTVM Connection	Adjust	Remarks
①	DOLBY NR (Rch)	RFKZ0038	TP201	VR201	• Adjust for 388mV ± 0.5dB
②	DOLBY NR (Lch)	RFKZ0038	TP301	VR301	• Adjust for 388mV ± 0.5dB

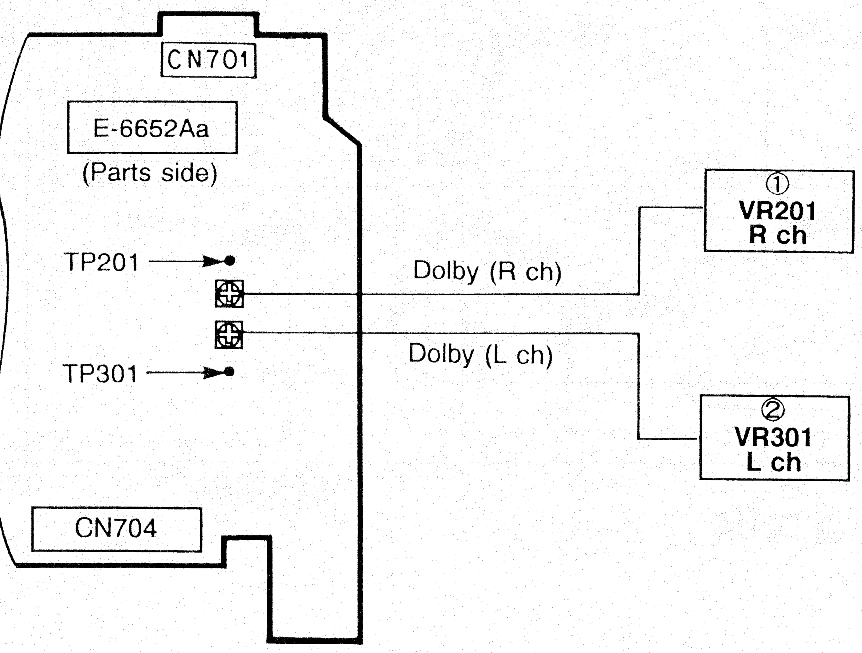
2. HEAD AZIMUTH ALIGNMENT

- Test tape is TCC-153.
- At forward play mode, adjust Ⓕ screw only so that speaker terminal level shows max value.
- At reverse play mode, adjust Ⓡ screw only so that speaker terminal level shows max value.
- Then, again at forward play mode, check if or not speaker terminal level still shows max value.
- If you do not have a test tape, use a tape whose recording level is than 6 kHz for head adjustment. After the above adjustment apply bonding agent to the adjustment screw.

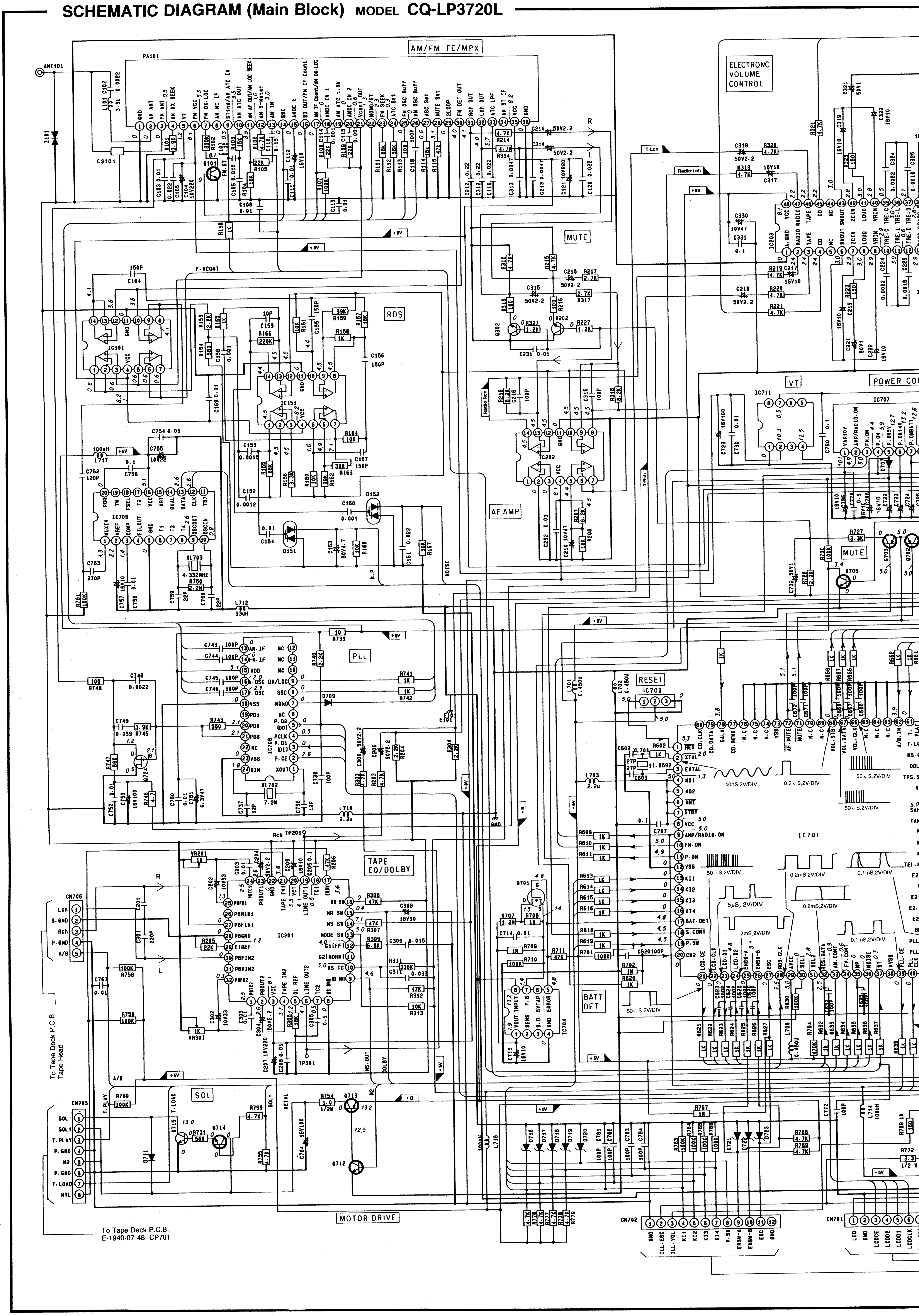


(D-type)

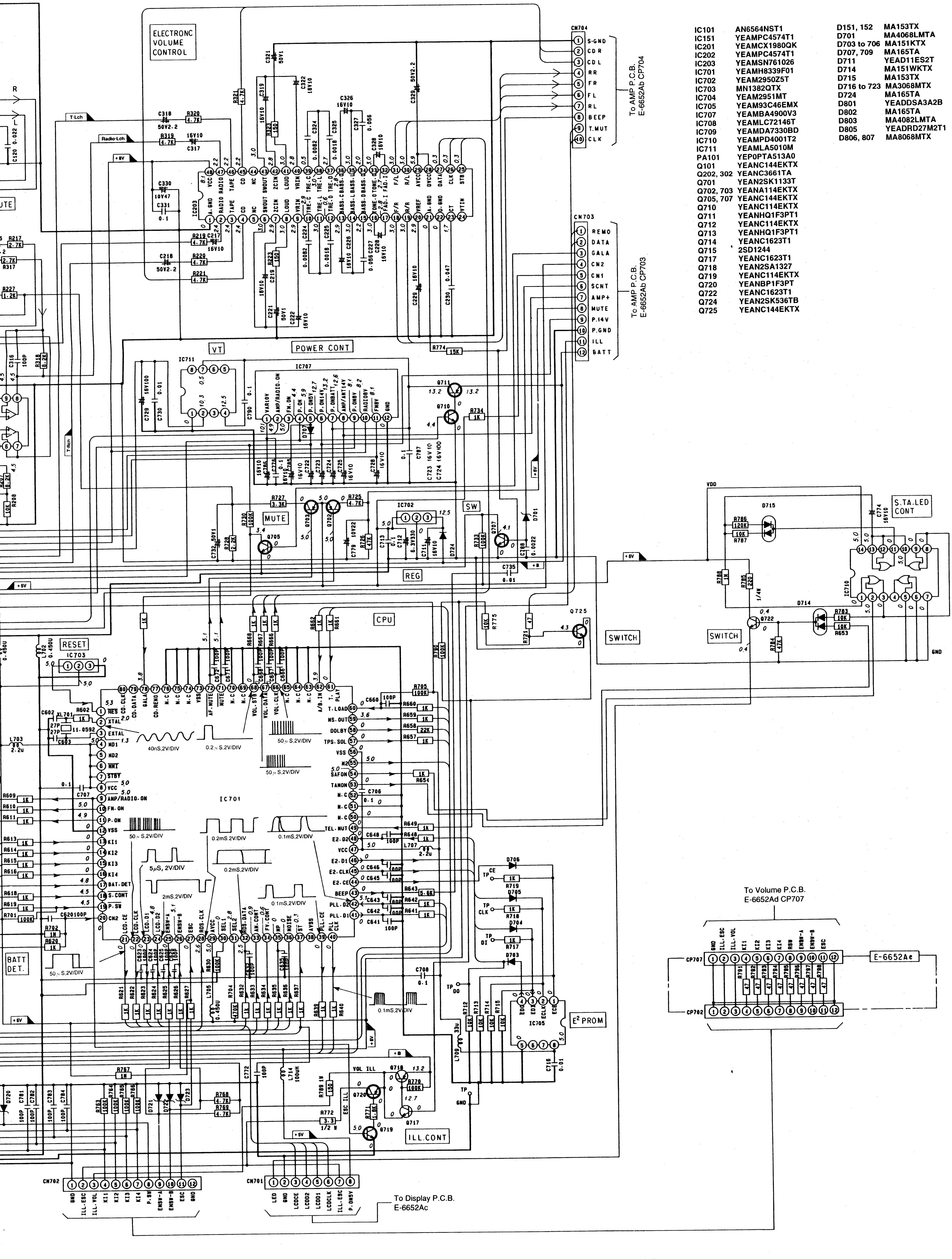
ALIGNMENT POINTS



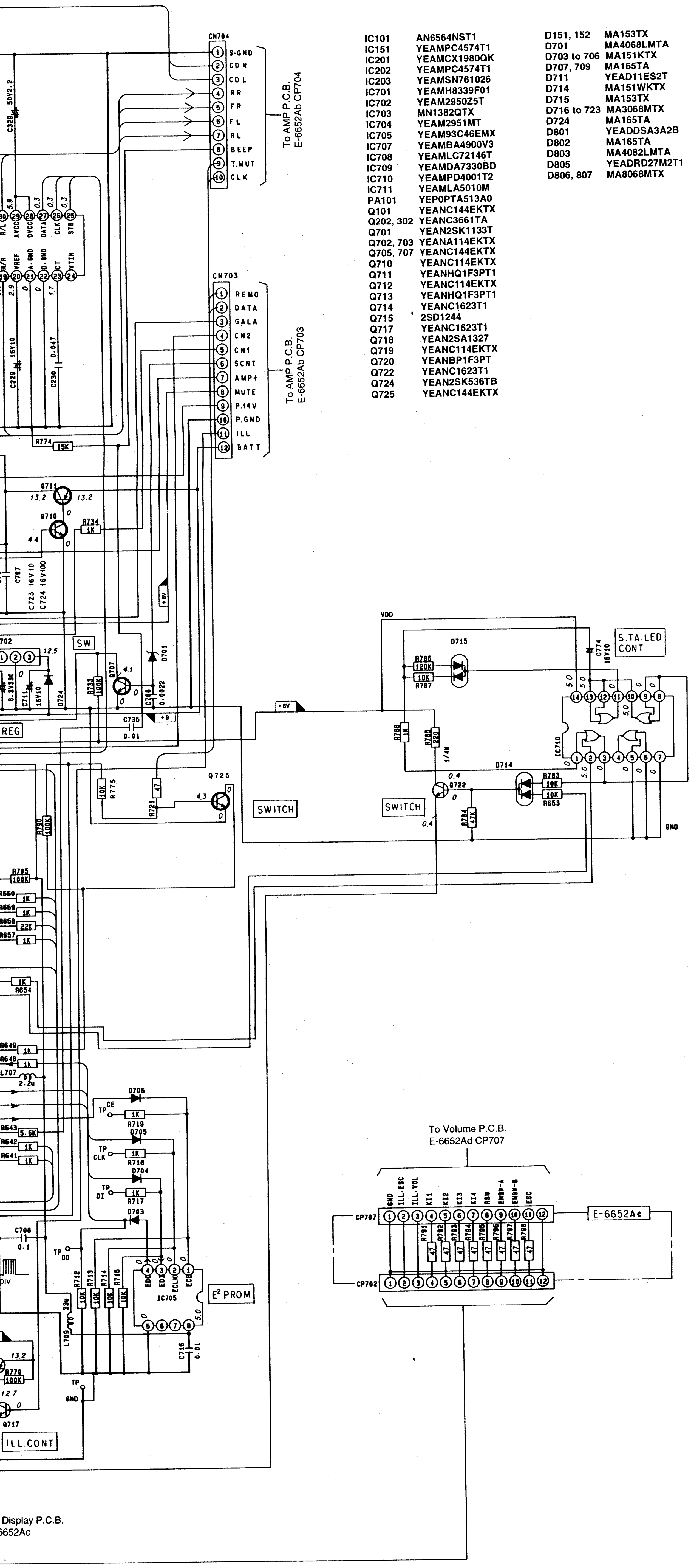
SCHEMATIC DIAGRAM (Main Block) MODEL CQ-LP3720L


ANT101
PA101
AM/FM FE/MPX
CS101
Z101
Q101
IC101
F.VCONT
RDS
IC151
D151
D152
IC709
XL703
4.332MHz
L712
33uH
L717
100uH
MUTE
Q302
Q202
AF AMP
IC202
Radio-Rch
T-Rch
ELECTRONC
VOLUME
CONTROL
T-Lch
Radio-Lch
IC203
VT
IC711
IC707
POWER CON
MUTE
Q703
Q702
Q705
PLL
IC708
XL702
7.2M
D709
E101
L710
2.2u
RESET
IC703
XL701
11.0592
L703
2.2u
IC701
Q701
IC704
BATT
DET.
TAPE
EQ/DOLBY
IC201
VR201
VR301
TP201
TP301
CN706
Lch
S.GND
Rch
P.GND
A/B
To Tape Deck P.C.B.
Tape Head
CN705
SOL-
SOL+
T.PLAY
P.GND
M2
P.GND
T.LOAD
MTL
SOL
Q715
Q714
D711
MOTOR DRIVE
Q713
Q712
L716
100uH
L714
100uH
D716
D717
D718
D719
D720
D721
D722
D723
CN702
GND
ILL.ESC
ILL.VOL
KI1
KI2
KI3
KI4
P.SW
ENSW-A
ENSW-B
ESC
GND
CN701
LED
GND
LCDCE
LCDD2
LCDD1
LCDCLK
To Tape Deck P.C.B.
E-1940-07-48 CP701
+8V
+6V
+5V
+B
40nS,2V/DIV
0.2 S.2V/DIV
50 S.2V/DIV
0.2mS.2V/DIV
0.1mS,2V/DIV
5μS, 2V/DIV
2mS.2V/DIV
0.1mS.2V/DIV

IC101	AN6564NST1	D151, 152	MA153TX
IC151	YEAMPC4574T1	D701	MA4068LMTA
IC201	YEAMCX1980QK	D703 to 706	MA151KTX
IC202	YEAMPC4574T1	D707, 709	MA165TA
IC203	YEAMSN761026	D711	YEAD11ES2T
IC701	YEAMH8339F01	D714	MA151WKTX
IC702	YEAM2950Z5T	D715	MA153TX
IC703	MN1382QTX	D716 to 723	MA3068MTX
IC704	YEAM2951MT	D724	MA165TA
IC705	YEAM93C46EMX	D801	YEADDSA3A2B
IC707	YEAMBA4900V3	D802	MA165TA
IC708	YEAMLC72146T	D803	MA4082LMTA
IC709	YEAMDA7330BD	D805	YEADRD27M2T1
IC710	YEAMPD4001T2	D806, 807	MA8068MTX
IC711	YEAMLA5010M		
PA101	YEP0PTA513A0		
Q101	YEANC144EKTX		
Q202, 302	YEANC3661TA		
Q701	YEAN2SK1133T		
Q702, 703	YEANA114EKTX		
Q705, 707	YEANC144EKTX		
Q710	YEANC114EKTX		
Q711	YEANHQ1F3PT1		
Q712	YEANC114EKTX		
Q713	YEANHQ1F3PT1		
Q714	YEANC1623T1		
Q715	2SD1244		
Q717	YEANC1623T1		
Q718	YEAN2SA1327		
Q719	YEANC114EKTX		
Q720	YEANBP1F3PT		
Q722	YEANC1623T1		
Q724	YEAN2SK536TB		
Q725	YEANC144EKTX		


ELECTRONC VOLUME CONTROL
IC203
CN704
S-GND
CDR
CDL
RR
FR
FL
RL
BEEP
T.MUT
CLK
To AMP P.C.B. E-6652Ab CP704
CN703
REMO
DATA
GALA
CN2
CN1
SCNT
AMP+
MUTE
P.14V
P.GND
ILL
BATT
To AMP P.C.B. E-6652Ab CP703
VT
IC711
POWER CONT
IC707
MUTE
SW
IC702
REG
S.TA.LED CONT
IC710
SWITCH
SWITCH
RESET
IC703
CPU
IC701
BATT DET.
E² PROM
IC705
ILL.CONT
To Volume P.C.B. E-6652Ad CP707
E-6652Ae
CN702
CN701
To Display P.C.B. E-6652Ac
40nS,2V/DIV
0.2 μ S,2V/DIV
50 μ S,2V/DIV
0.2mS,2V/DIV
0.1mS,2V/DIV
5μS, 2V/DIV
2mS,2V/DIV
0.1mS,2V/DIV
GND

AM/FM/WB MPX ELECTRONIC TUNING RADIO with Stereo Cass


CN704
S-GND
CDR
CDL
RR
FR
FL
RL
BEEP
T.MUT
CLK
To AMP P.C.B.
E-6652Ab CP704
CN703
REMO
DATA
GALA
CN2
CN1
SCNT
AMP+
MUTE
P.14V
P.GND
ILL
BATT
To AMP P.C.B.
E-6652Ab CP703
C329 50V2.2
C229 16V10
C230 0.047
R774 15K
Q711
Q710
R734 1K
C787
C723 16V10
C724 16V100
+8V
SW
Q707
D701
D724
C711 16V10
R733 100K
C708 0.0022
C735 0.01
REG
Q725
R775 10K
R721 47
R730 100K
SWITCH
VDD
D715
R786 120K
R787 10K
C774 16V10
S.TA.LED
CONT
R788 1M
R785 220
1/4W
IC710
D714
Q722
R783 10K
R653 10K
R784 47K
GND
R705 100K
R660 1K
R659 1K
R658 22K
R657 1K
R654 1K
R649 1K
R648 1K
L707 2.2u
D706
TP CE
R719 1K
D705
TP CLK
R718 1K
D704
TP DI
R717 1K
D703
C708 0.1
TP DO
R712 10K
R713 10K
R714 10K
R716 10K
IC705
E² PROM
EDO
EDI
ECLK
ECE
C716 0.01
L709 33u
TP GND
R779 100K
Q717
ILL.CONT
DIV
To Volume P.C.B.
E-6652Ad CP707
GND
ILL.ESC
ILL.VOL
KI1
KI2
KI3
KI4
REW
ENSW-A
ENSW-B
ESC
CP707
CP702
R791 47
R792 47
R793 47
R794 47
R795 47
R796 47
R797 47
R798 47
E-6652Ae
Display P.C.B.
6652Ac

IC101	AN6564NST1
IC151	YEAMPC4574T1
IC201	YEAMCX1980QK
IC202	YEAMPC4574T1
IC203	YEAMSN761026
IC701	YEAMH8339F01
IC702	YEAM2950Z5T
IC703	MN1382QTX
IC704	YEAM2951MT
IC705	YEAM93C46EMX
IC707	YEAMBA4900V3
IC708	YEAMLC72146T
IC709	YEAMDA7330BD
IC710	YEAMPD4001T2
IC711	YEAMLA5010M
PA101	YEP0PTA513A0
Q101	YEANC144EKTX
Q202, 302	YEANC3661TA
Q701	YEAN2SK1133T
Q702, 703	YEANA114EKTX
Q705, 707	YEANC144EKTX
Q710	YEANC114EKTX
Q711	YEANHQ1F3PT1
Q712	YEANC114EKTX
Q713	YEANHQ1F3PT1
Q714	YEANC1623T1
Q715	2SD1244
Q717	YEANC1623T1
Q718	YEAN2SA1327
Q719	YEANC114EKTX
Q720	YEANBP1F3PT
Q722	YEANC1623T1
Q724	YEAN2SK536TB
Q725	YEANC144EKTX

D151, 152	MA153TX
D701	MA4068LMTA
D703 to 706	MA151KTX
D707, 709	MA165TA
D711	YEAD11ES2T
D714	MA151WKTX
D715	MA153TX
D716 to 723	MA3068MTX
D724	MA165TA
D801	YEADDSA3A2B
D802	MA165TA
D803	MA4082LMTA
D805	YEADRD27M2T1
D806, 807	MA8068MTX

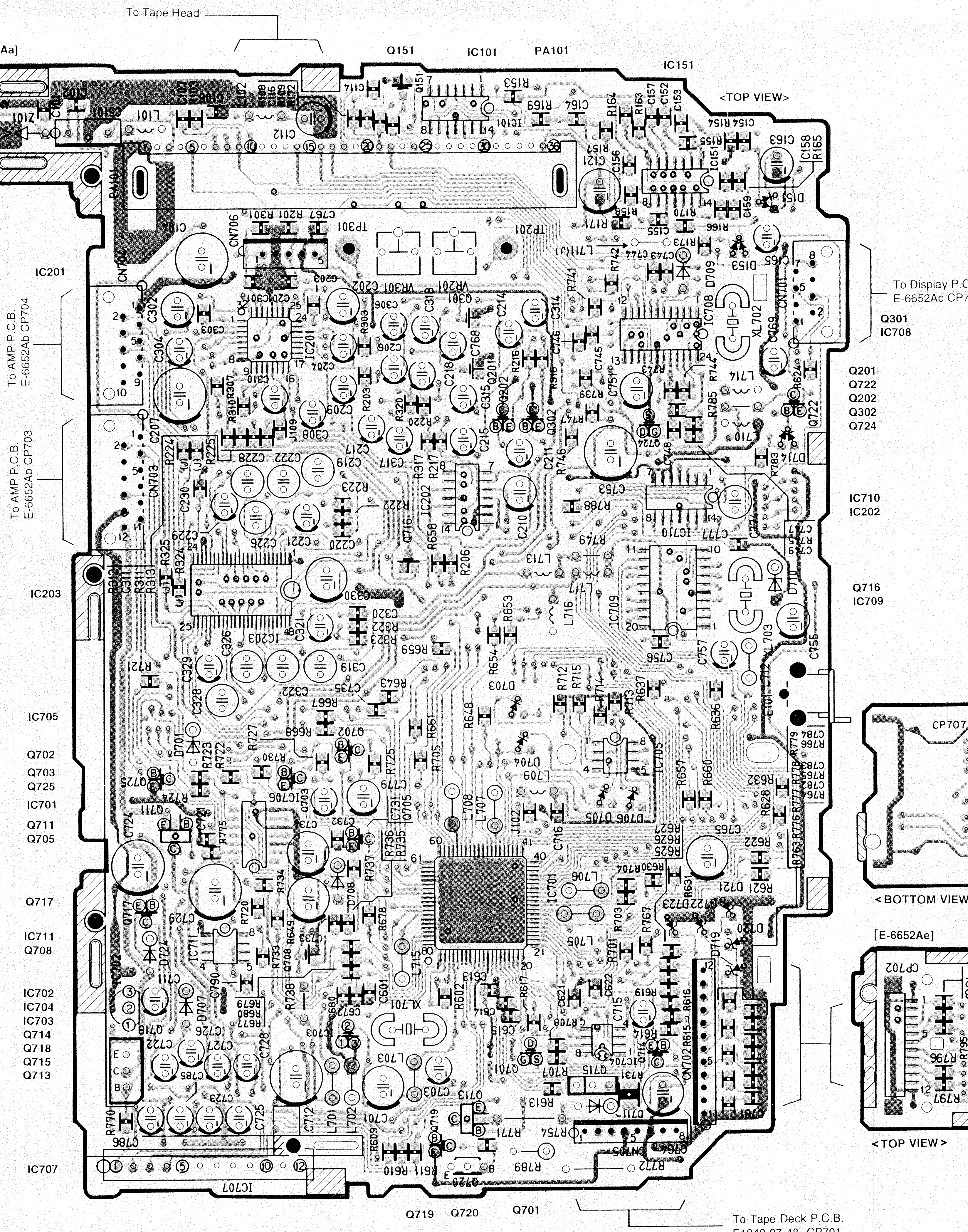
WIRING DIAGRAM (Main Block) MODEL CQ-LP3720L

Pin	IC101	IC151	IC202	IC702	IC703	IC704	IC705	IC707	IC708	IC709	IC710	IC711
1	0.6	4.5	—	5.0	5.0	7.9	0	10.1	2.6	1.3	0	0
2	0.6	4.5	0	0	5.0	—	0	4.9	0	2.2	5.0	10.3
3	0.6	4.5	0	12.5	0	—	0	5.0	0.5	1.4	0	—
4	8.2	8.2	8.1			0	0	4.4	0	—	—	12.5
5	0.6	1.0	4.4			4.8	0	5.9	0	0	0	—
6	0.6	4.9	4.5			—	—	12.7	—	—	0	—
7	0.6	7.1	4.5			1.4	—	13.2	0	—	0	0.5
8	4.1	4.5	4.5			13.2	5.0	12.6	0	—	0	—
9	4.1	4.5	4.5					8.1	0	2.6	0	
10	3.8	4.4	4.5					8.2	—	0.8	5.0	
11	0	0	0					8.1	—	—	0	
12	3.8	4.5	4.5					0	—	2.6	5.0	
13	4.1	4.5	4.5						0	2.6	5.0	
14	4.1	4.4	4.5						0	—	5.0	
15									5.1	—		
16									2.0	5.1		
17									2.1	—		
18									0	—		
19									—	—		
20									2.1	0		
21									2.1			
22									—			
23									0			
24									1.8			

Pin	IC201		
1	2.5	17	3.6
2	2.6	18	0.5
3	8.1	19	4.1
4	3.7	20	3.5
5	1.2	21	3.6
6	4.1	22	0
7	0.5	23	2.6
8	0	24	2.5
9	4.6	25	1.3
10	3.0	26	—
11	—	27	0
12	4.0	28	0
13	5.0	29	1.2
14	7.1	30	0
15	0.4	31	—
16	0	32	0.3

Pin	IC203		
1	0	25	0.3
2	2.4	26	0.3
3	2.4	27	0.3
4	2.4	28	5.9
5	—	29	5.9
6	3.0	30	3.0
7	2.9	31	3.0
8	3.0	32	2.7
9	2.9	33	3.0
10	2.9	34	2.0
11	3.0	35	3.0
12	0.6	36	2.8
13	2.9	37	2.7
14	3.0	38	3.0
15	2.2	39	0.5
16	3.0	40	2.8
17	2.8	41	3.0
18	3.0	42	2.8
19	3.0	43	3.0
20	2.9	44	—
21	0	45	2.2
22	0	46	2.2
23	1.7	47	2.2
24	—	48	8.1

Pin	PA101		
1	0	19	
2	0	20	
3	0	21	
4	0.5	22	
5	1.2	23	
6	8.1	24	
7	5.3	25	
8	—	26	
9	0.3	27	
10	3.5	28	
11	3.9	29	
12	1.0	30	
13	3.0	31	
14	0	32	
15	0	33	
16	0	34	
17	0	35	
18	0	36	


To Tape Head
[E-6652Aa]
Q151
IC101
PA101
IC151
<TOP VIEW>
IC201
To AMP P.C.B. E-6652Ab CP704
To AMP P.C.B. E-6652Ab CP703
IC203
IC705
Q702
Q703
Q725
IC701
Q711
Q705
Q717
IC711
Q708
IC702
IC704
IC703
Q714
Q718
Q715
Q713
IC707
To Display P.C
E-6652Ac CP7
Q301
IC708
Q201
Q722
Q202
Q302
Q724
IC710
IC202
Q716
IC709
CP707
<BOTTOM VIEW
[E-6652Ae]
CP702
<TOP VIEW>
Q719
Q720
Q701
To Tape Deck P.C.B.
E1940-07-48 CP701

IC201	
17	3.6
18	0.5
19	4.1
20	3.5
21	3.6
22	0
23	2.6
24	2.5
25	1.3
26	—
27	0
28	0
29	1.2
30	0
31	—
32	0.3

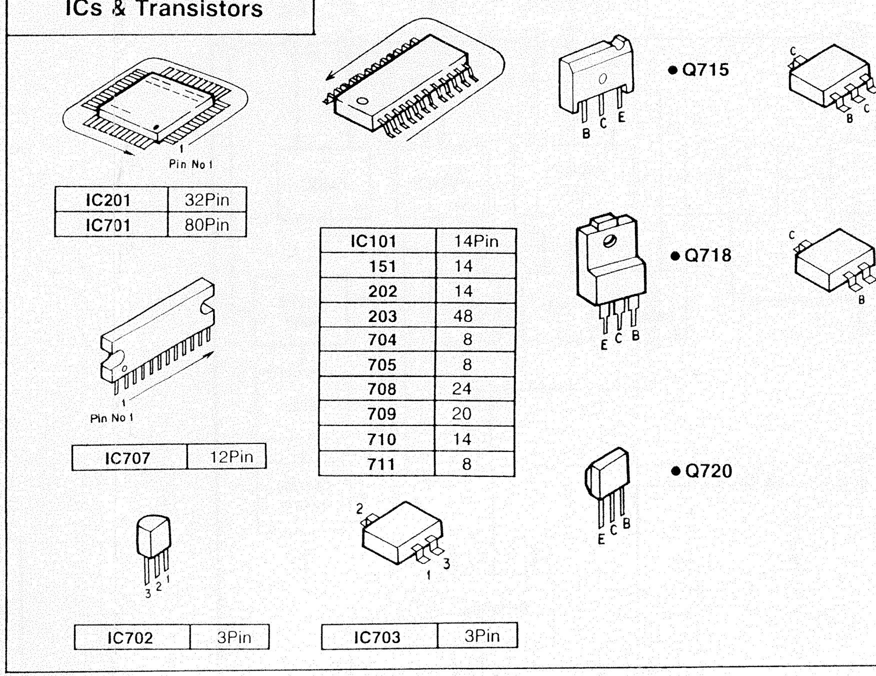
Pin	IC203		
1	0	25	0.3
2	2.4	26	0.3
3	2.4	27	0.3
4	2.4	28	5.9
5	—	29	5.9
6	3.0	30	3.0
7	2.9	31	3.0
8	3.0	32	2.7
9	2.9	33	3.0
10	2.9	34	2.0
11	3.0	35	3.0
12	0.6	36	2.8
13	2.9	37	2.7
14	3.0	38	3.0
15	2.2	39	0.5
16	3.0	40	2.8
17	2.8	41	3.0
18	3.0	42	2.8
19	3.0	43	3.0
20	2.9	44	—
21	0	45	2.2
22	0	46	2.2
23	1.7	47	2.2
24	—	48	8.1

Pin	PA101		
1	0	19	—
2	0	20	0
3	0	21	0.6
4	0.5	22	1.3
5	1.2	23	2.3
6	8.1	24	0.3
7	5.3	25	0
8	—	26	0
9	0.3	27	0.6
10	3.5	28	3.1
11	3.9	29	0
12	1.0	30	4.0
13	3.0	31	4.1
14	0	32	4.0
15	0	33	2.7
16	0	34	—
17	0	35	8.2
18	0	36	0

	B	C	E
Q101	0	8.1	0
Q202	0	0	0
Q302	0	0	0
Q702	5.0	0	5.0
Q703	5.0	0	5.0
Q705	0	3.4	0
Q707	0	4.1	0
Q710	4.4	0	0
Q711	0	13.2	13.2
Q712	0	12.5	0
Q713	12.5	0	13.2
Q714	0	0	0
Q715	0	13.0	0
Q717	0	12.7	0
Q718	12.7	0	13.2
Q719	5.0	0	0
Q720	0	0	0
Q722	0	4.4	0.4
Q725			

	G	D	S
Q701	4.8	1.5	1.4
Q724	2.1	1.2	0

ICs & Transistors


Pin No 1
1
Pin No 1
1
B C E
●Q715
E C B
●Q718
E C B
●Q720
C
B
C
3 2 1
2
1 3

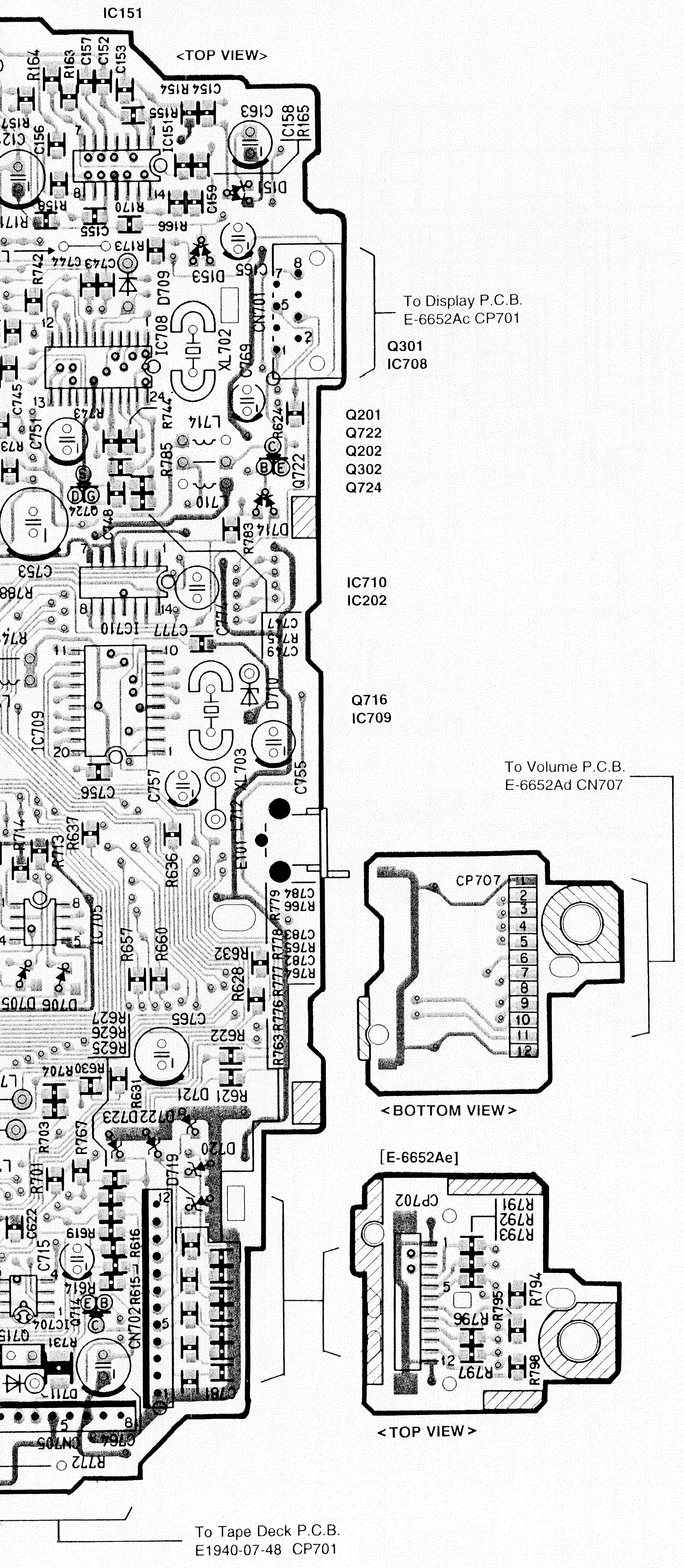
IC201	32Pin
IC701	80Pin

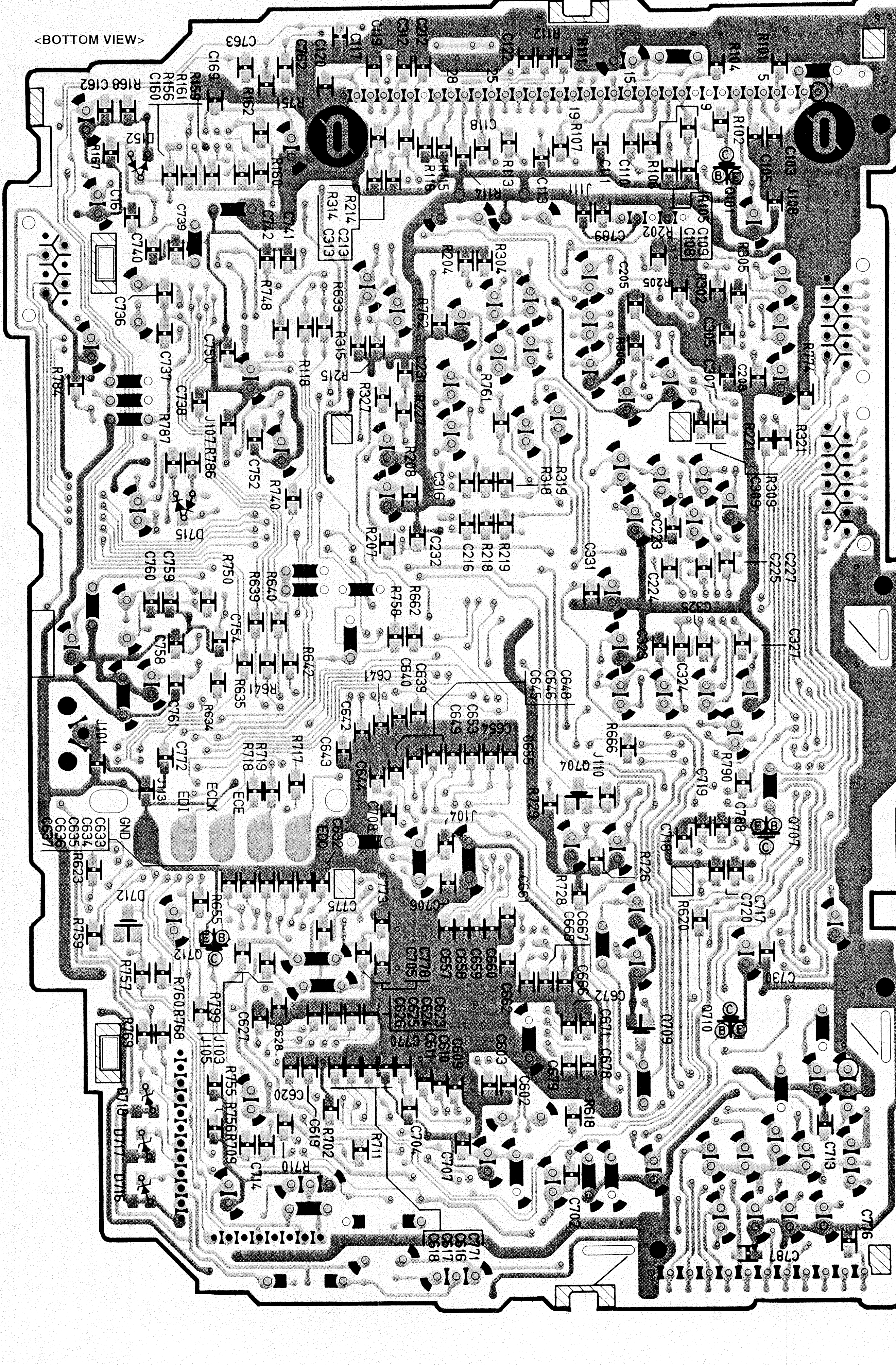
IC101	14Pin
151	14
202	14
203	48
704	8
705	8
708	24
709	20
710	14
711	8

IC707	12Pin

IC702	3Pin

IC703	3Pin

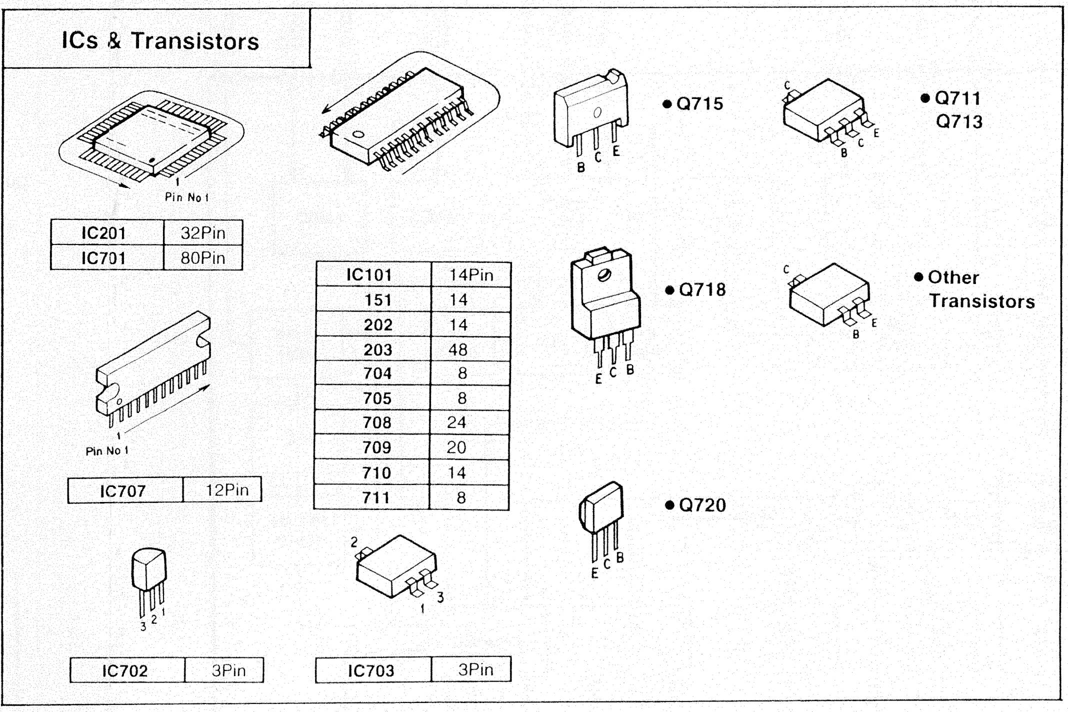

IC151
<TOP VIEW>
To Display P.C.B.
E-6652Ac CP701
Q301
IC708
Q201
Q722
Q202
Q302
Q724
IC710
IC202
Q716
IC709
To Volume P.C.B.
E-6652Ad CN707
CP707
<BOTTOM VIEW>
[E-6652Ae]
CP702
<TOP VIEW>
To Tape Deck P.C.B.
E1940-07-48 CP701


<BOTTOM VIEW>
GND
EDI
ECK
ECE

B	C	E
0	8.1	0
0	0	0
0	0	0
5.0	0	5.0
5.0	0	5.0
0	3.4	0
0	4.1	0
4.4	0	0
0	13.2	13.2
0	12.5	0
12.5	0	13.2
0	0	0
0	13.0	0
0	12.7	0
12.7	0	13.2
5.0	0	0
0	0	0
0	4.4	0.4

G	D	S
4.8	1.5	1.4
2.1	1.2	0

ICs & Transistors


Pin No 1
Pin No 1
● Q715
B C E
● Q711
Q713
C
B C E
● Q718
E C B
● Other
Transistors
C
B E
● Q720
E C B
3 2 1
2
1 3

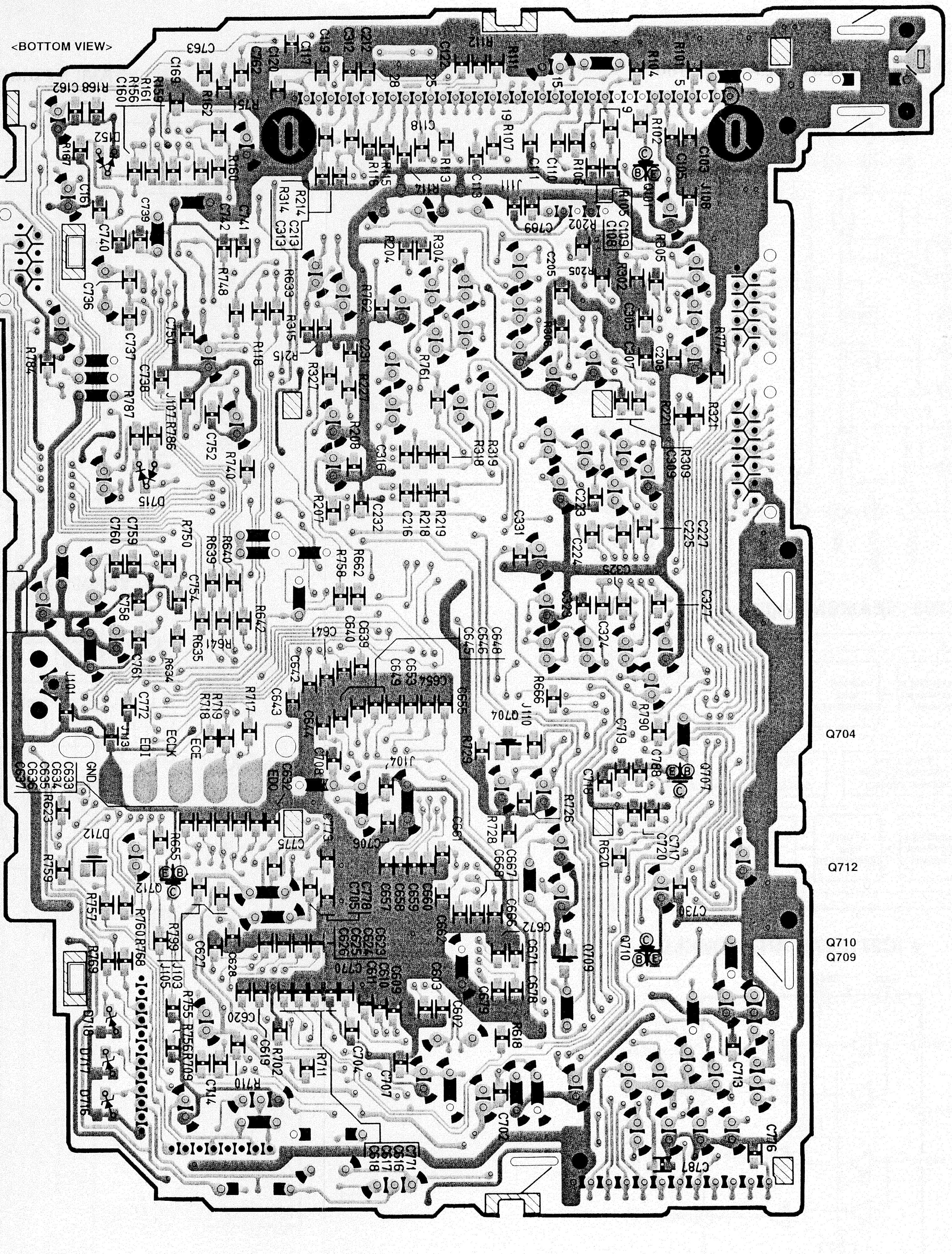
IC201	32Pin
IC701	80Pin

IC101	14Pin
151	14
202	14
203	48
704	8
705	8
708	24
709	20
710	14
711	8

IC707	12Pin

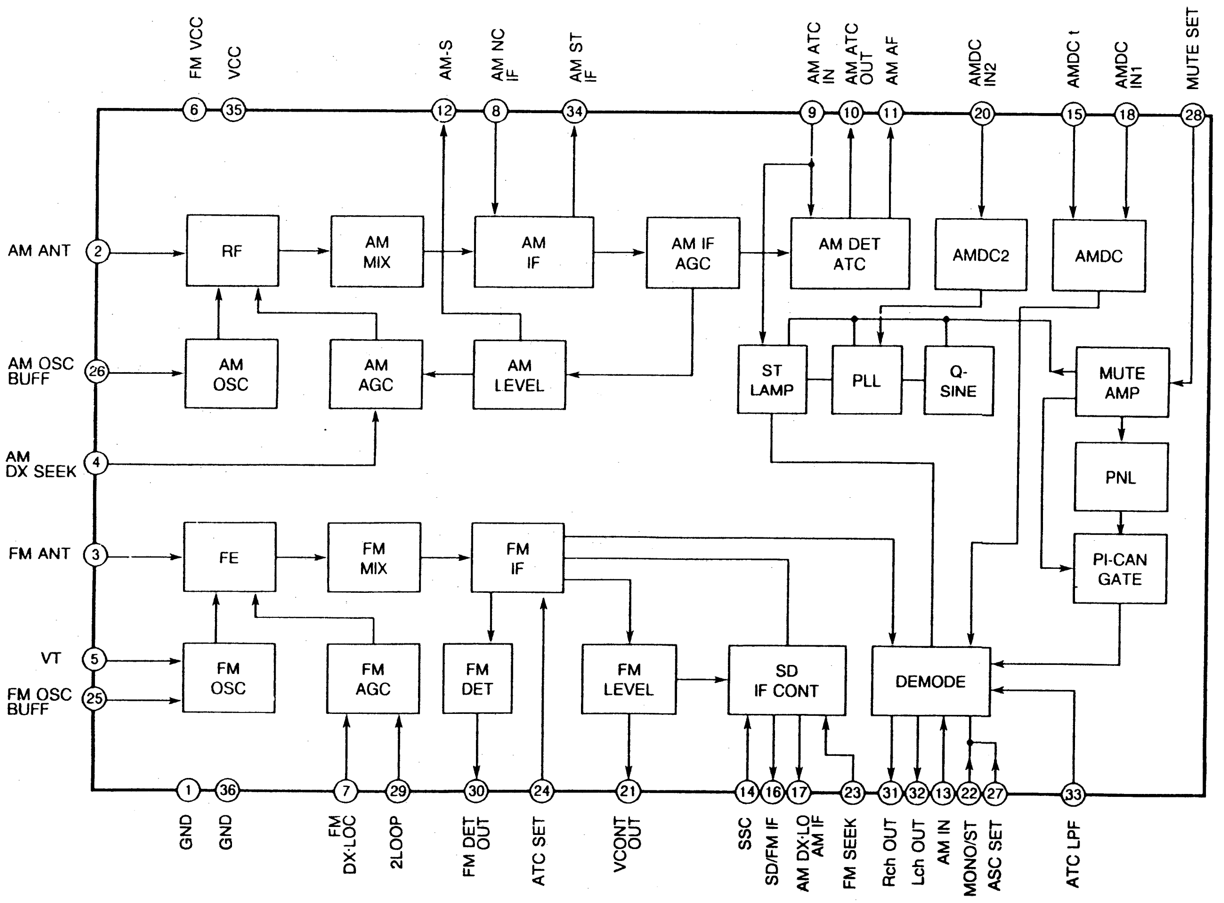
IC702	3Pin

IC703	3Pin

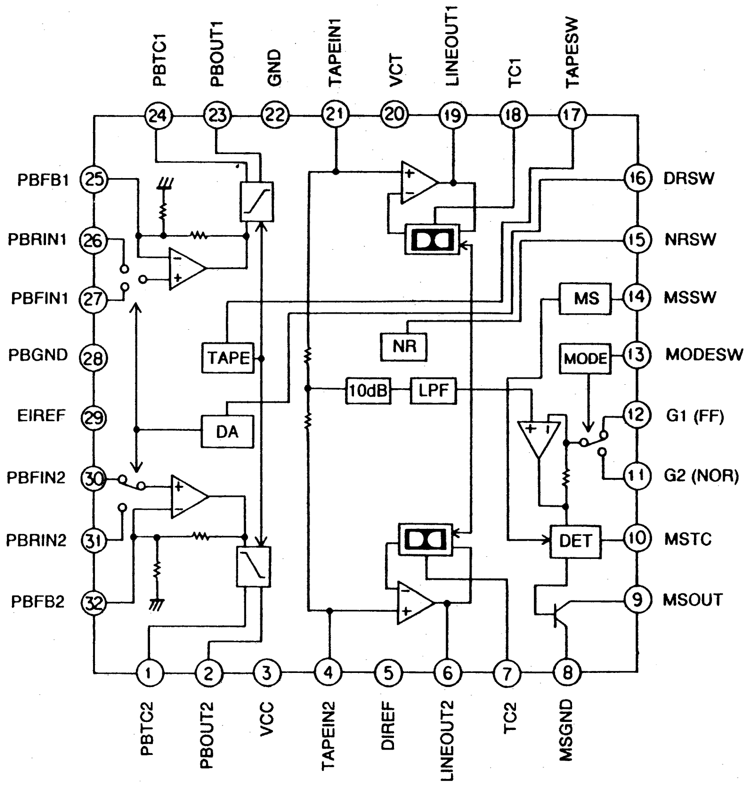

<BOTTOM VIEW>
Q704
Q712
Q710
Q709

PACKAGE AND IC BLOCK DIAGRAM

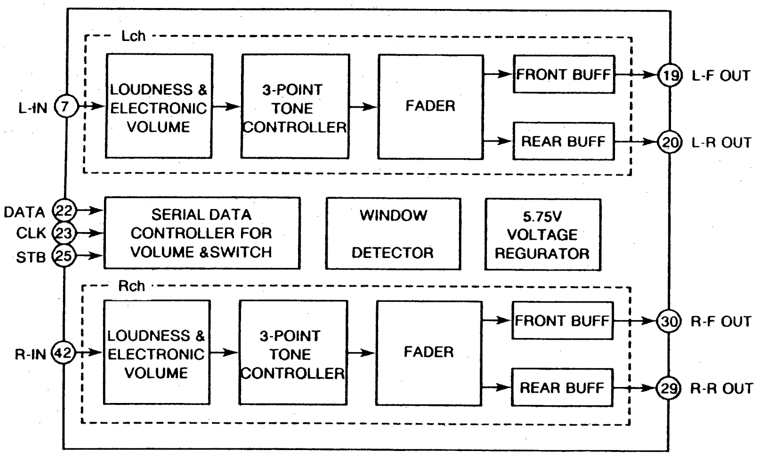
• PA101 YEP0PTA513A0


FM VCC 6
VCC 35
AM-S 12
AM NC IF 8
AM ST IF 34
AM ATC IN 9
AM ATC OUT 10
AM AF 11
AMDC IN2 20
AMDC 1 15
AMDC IN1 18
MUTE SET 28
AM ANT 2
AM OSC BUFF 26
AM DX SEEK 4
FM ANT 3
VT 5
FM OSC BUFF 25
RF
AM MIX
AM IF
AM IF AGC
AM DET ATC
AMDC2
AMDC
AM OSC
AM AGC
AM LEVEL
ST LAMP
PLL
Q-SINE
MUTE AMP
PNL
PI-CAN GATE
FE
FM MIX
FM IF
FM OSC
FM AGC
FM DET
FM LEVEL
SD IF CONT
DEMODE
1 GND
36 GND
7 FM DX·LOC
29 2LOOP
30 FM DET OUT
24 ATC SET
21 VCONT OUT
14 SSC
16 SD/FM IF
17 AM DX:LO AM IF
23 FM SEEK
31 Rch OUT
32 Lch OUT
13 AM IN
22 MONO/ST
27 ASC SET
33 ATC LPF

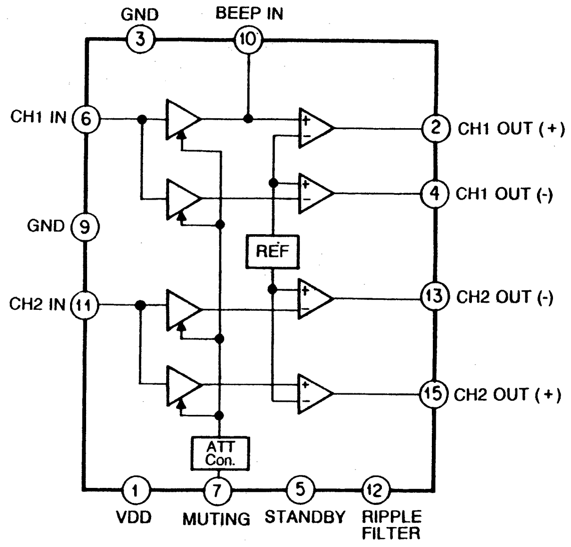
• IC201 YEAMCX1980QK


PBTC1 24
PBOUT1 23
GND 22
TAPEIN1 21
VCT 20
LINEOUT1 19
TC1 18
TAPESW 17
PBFB1 25
PBRIN1 26
PBFIN1 27
PBGND 28
EIREF 29
PBFIN2 30
PBRIN2 31
PBFB2 32
16 DRSW
15 NRSW
14 MSSW
13 MODESW
12 G1 (FF)
11 G2 (NOR)
10 MSTC
9 MSOUT
TAPE
DA
NR
10dB
LPF
MS
MODE
DET
1 PBTC2
2 PBOUT2
3 VCC
4 TAPEIN2
5 DIREF
6 LINEOUT2
7 TC2
8 MSGND

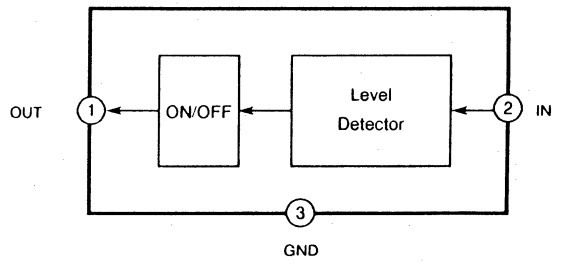
• IC203 YEAMSN761026


Lch
L-IN 7
LOUDNESS & ELECTRONIC VOLUME
3-POINT TONE CONTROLLER
FADER
FRONT BUFF
REAR BUFF
19 L-F OUT
20 L-R OUT
DATA 22
CLK 23
STB 25
SERIAL DATA CONTROLLER FOR VOLUME &SWITCH
WINDOW DETECTOR
5.75V VOLTAGE REGURATOR
Rch
R-IN 42
LOUDNESS & ELECTRONIC VOLUME
3-POINT TONE CONTROLLER
FADER
FRONT BUFF
REAR BUFF
30 R-F OUT
29 R-R OUT

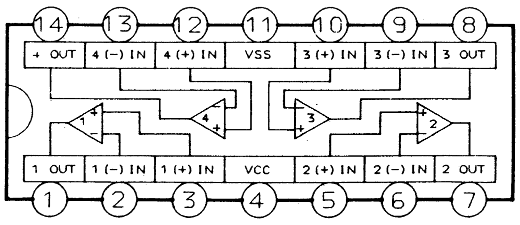
• IC271, 371 AN7190NKLC


GND 3
BEEP IN 10
CH1 IN 6
GND 9
CH2 IN 11
REF
ATT Con.
2 CH1 OUT (+)
4 CH1 OUT (-)
13 CH2 OUT (-)
15 CH2 OUT (+)
1 VDD
7 MUTING
5 STANDBY
12 RIPPLE FILTER

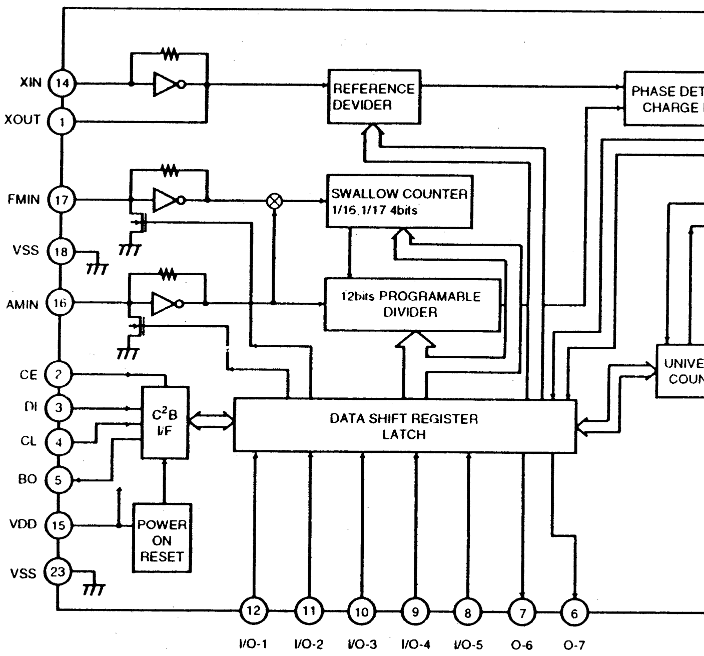
• IC703 MN13820QTX


OUT 1
ON/OFF
Level Detector
2 IN
3 GND

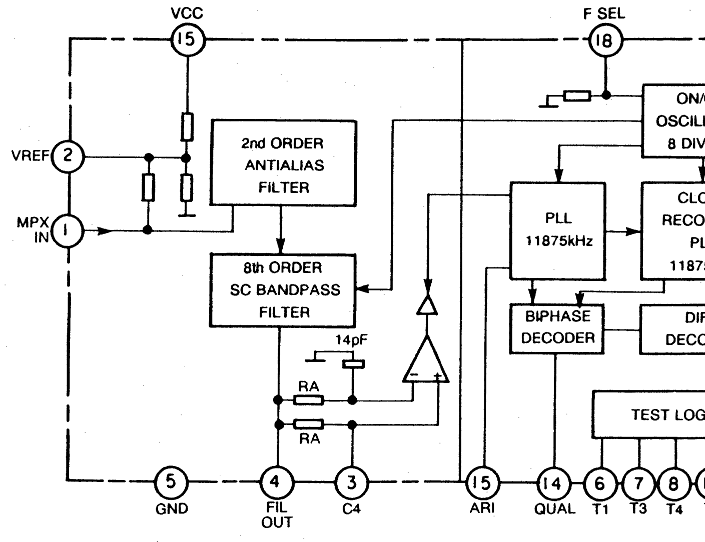
• IC101 AN6564NST1
• IC151, 202 YEAMPC4574T1


14 4 OUT
13 4 (−) IN
12 4 (+) IN
11 VSS
10 3 (+) IN
9 3 (−) IN
8 3 OUT
1 1 OUT
2 1 (−) IN
3 1 (+) IN
4 VCC
5 2 (+) IN
6 2 (−) IN
7 2 OUT

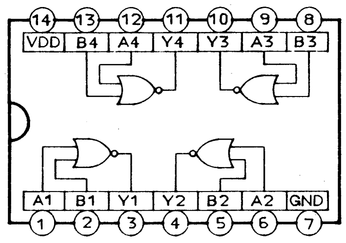
• IC708 YEAMLC72146T


XIN 14
XOUT 1
FMIN 17
VSS 18
AMIN 16
CE 2
DI 3
CL 4
BO 5
VDD 15
VSS 23
REFERENCE DEVIDER
PHASE DET CHARGE
SWALLOW COUNTER 1/16.1/17 4bits
12bits PROGRAMABLE DIVIDER
C^2B I/F
DATA SHIFT REGISTER LATCH
POWER ON RESET
UNIVE COUN
12 I/O-1
11 I/O-2
10 I/O-3
9 I/O-4
8 I/O-5
7 O-6
6 O-7

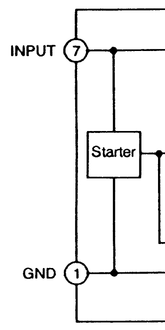
• IC709 YEAMDA7330BD


VCC 15
F SEL 18
VREF 2
MPX IN 1
2nd ORDER ANTIALIAS FILTER
8th ORDER SC BANDPASS FILTER
14pF
RA
RA
PLL 11875kHz
ON/ OSCIL 8 DIV
CLO RECO PL 1187
BIPHASE DECODER
DIF DECO
TEST LOG
5 GND
4 FIL OUT
3 C4
15 ARI
14 QUAL
6 T1
7 T3
8 T4

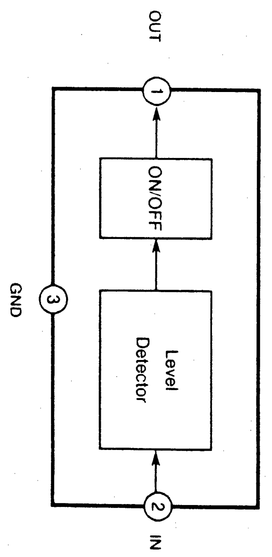
• IC710
YEAMPD4001T2


14 VDD
13 B4
12 A4
11 Y4
10 Y3
9 A3
8 B3
1 A1
2 B1
3 Y1
4 Y2
5 B2
6 A2
7 GND

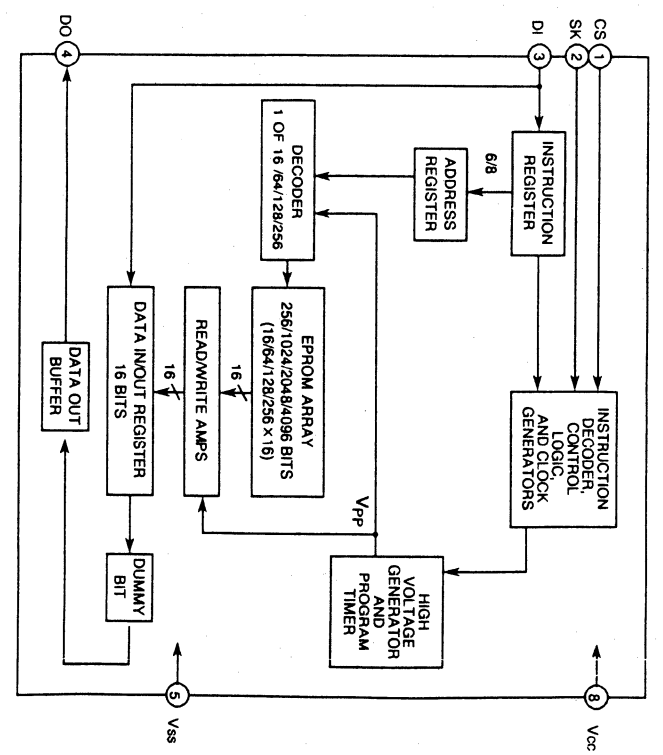
• IC7
YEA


INPUT 7
Starter
GND 1

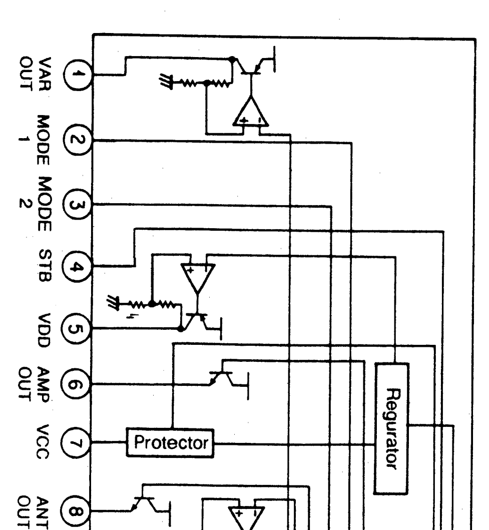
• IC703 MN13820QTX


OUT
1
ON/OFF
Level Detector
2
IN
3
GND

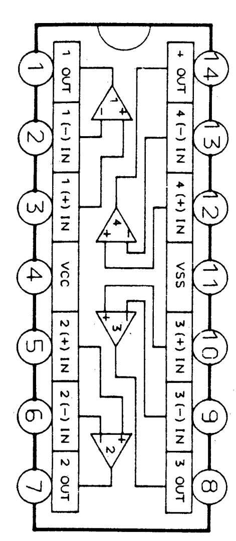
• IC705 YEAM93C46EMX


CS 1
SK 2
DI 3
INSTRUCTION REGISTER
6/8
ADDRESS REGISTER
INSTRUCTION DECODER, CONTROL LOGIC, AND CLOCK GENERATORS
8 Vcc
HIGH VOLTAGE GENERATOR AND PROGRAM TIMER
VPP
DECODER 1 OF 16 /64/128/256
EPROM ARRAY 256/1024/2048/4096 BITS (16/64/128/256 x 16)
16
READ/WRITE AMPS
16
5 Vss
DATA IN/OUT REGISTER 16 BITS
DUMMY BIT
DO 4
DATA OUT BUFFER

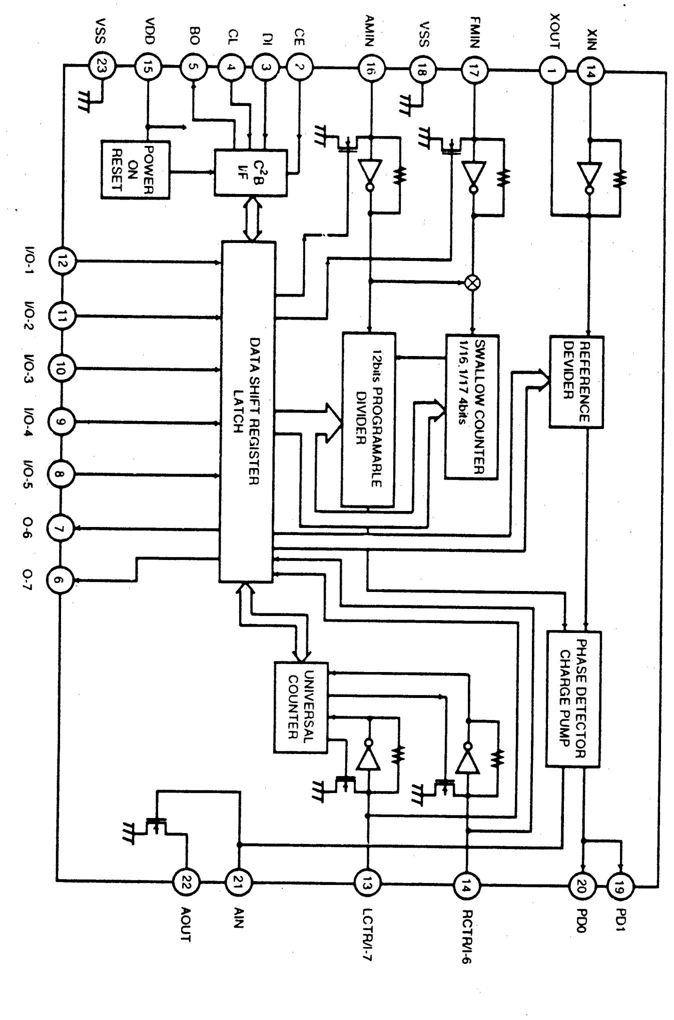
• IC707 YEAMBA4900V3


Regurator
Protector
1 VAR OUT
2 MODE 1
3 MODE 2
4 STB
5 VDD
6 AMP OUT
7 VCC
8 ANT OUT

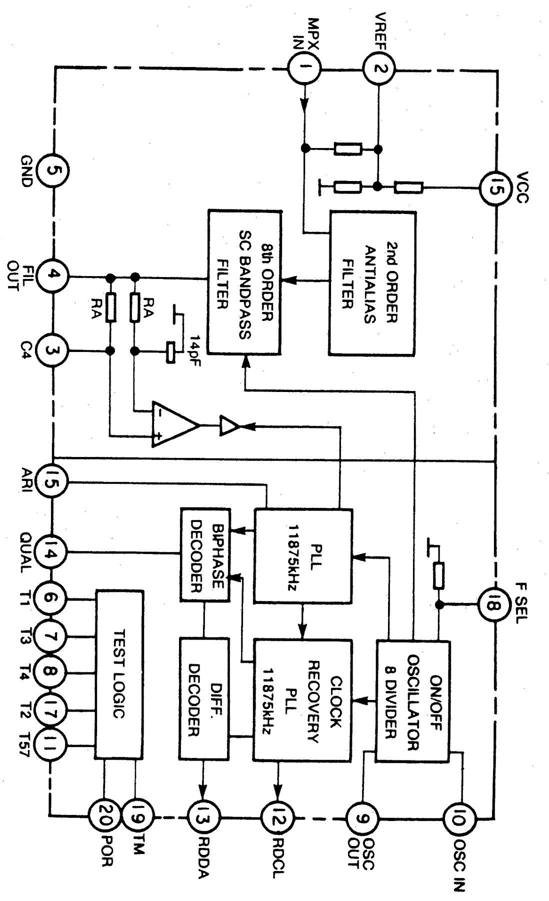
• IC101 AN6564NST1
• IC151, 202 YEAMPC4574T1


14 13 12 11 10 9 8
4 OUT
4 (−) IN
4 (+) IN
VSS
3 (+) IN
3 (−) IN
3 OUT
1 OUT
1 (−) IN
1 (+) IN
VCC
2 (+) IN
2 (−) IN
2 OUT
1 2 3 4 5 6 7

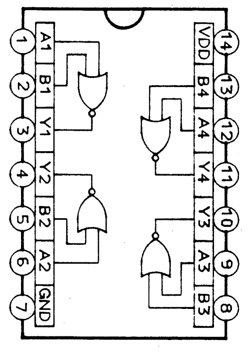
• IC708 YEAMLC72146T


XIN 14
XOUT 1
FMIN 17
VSS 18
AMIN 16
CE 2
DI 3
CL 4
BO 5
VDD 15
VSS 23
REFERENCE DEVIDER
SWALLOW COUNTER 1/16,1/17 4bits
12bits PROGRAMABLE DIVIDER
C²B I/F
POWER ON RESET
DATA SHIFT REGISTER LATCH
PHASE DETECTOR CHARGE PUMP
UNIVERSAL COUNTER
19 PD1
20 PD0
14 RCTR/I-6
13 LCTR/I-7
21 AIN
22 AOUT
12 I/O-1
11 I/O-2
10 I/O-3
9 I/O-4
8 I/O-5
7 O-6
6 O-7

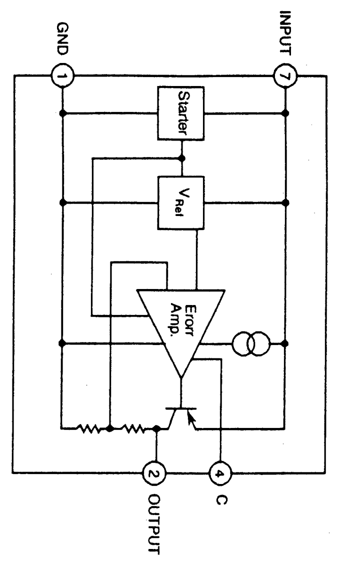
• IC709 YEAMDA7330BD


VCC 15
F SEL 18
VREF 2
MPX IN 1
2nd ORDER ANTIALIAS FILTER
8th ORDER SC BANDPASS FILTER
14pF
RA
RA
ON/OFF OSCILLATOR 8 DIVIDER
PLL 11875kHz
CLOCK RECOVERY PLL 11875kHz
BIPHASE DECODER
DIFF. DECODER
TEST LOGIC
10 OSC IN
9 OSC OUT
12 RDCL
13 RDDA
19 TM
20 POR
5 GND
4 FIL OUT
3 C4
15 ARI
14 QUAL
6 T1
7 T3
8 T4
17 T2
11 T57

• IC710
YEAMPD4001T2


14 13 12 11 10 9 8
VDD B4 A4 Y4 Y3 A3 B3
A1 B1 Y1 Y2 B2 A2 GND
1 2 3 4 5 6 7

• IC711
YEAMLA5010M


INPUT 7
Starter
VRef
Erorr Amp.
4 C
2 OUTPUT
GND 1

Replacement Parts List
Model NO. CQ-LP3720L

NOTES:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice:Components identified by ⚠ mark have special characteristics impotant for safety. When replacing any of these components,use only manufacturer's specified parts.
3. Next to the Ref.No.in the parts list is a location key,to show the general location of the parts shown in the exploded drawing,as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item.

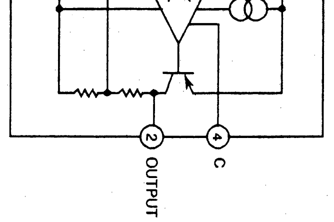
After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assmbly,and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

5. "MCC"marks in remarks column are indicated supply parts of Matsushita Communication Industrial Corp.of America(MCC).

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
			ICs & TRANSISTORs		
[E-6652A]					
IC101	AN6564NST1		IC	1	
IC151	YEAMPC4574T1		IC	1	
IC201	YEAMCX1980QK		IC	1	
IC202	YEAMPC4574T1		IC	1	
IC203	YEAMSN761026		IC	1	
IC271, 371	AN7190NKLC		IC	2	
IC681	YEAMLC75853		IC	1	
IC701	YEAMH8339F01		IC	1	
IC702	YEAM2950Z5T		IC	1	
IC703	MN1382QTX		IC	1	
IC704	YEAM2951MT		IC	1	
IC705	YEAM93C46EMX		IC	1	
IC707	YEAMBA4900V3		IC	1	
IC708	YEAMLC72146T		IC	1	

MODEL CQ-LP3720L

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
Q710	YEANC114EKTX		Transistor	1	
Q711	YEANHQ1F3PT1		Transistor	1	
Q712	YEANC114EKTX		Transistor	1	
Q713	YEANHQ1F3PT1		Transistor	1	
Q714	YEANC1623T1		Transistor	1	
Q715	2SD1244		Transistor	1	
Q717	YEANC1623T1		Transistor	1	
Q718	YEAN2SA1327		Transistor	1	
Q719	YEANC114EKTX		Transistor	1	
Q720	YEANBP1F3PT		Transistor	1	
Q722	YEANC1623T1		Transistor	1	
Q724	YEAN2SK536TB		Transistor	1	
Q725	YEANC144EKTX		Transistor	1	
			DIODEs		
[E-6652A]					
D151, 152	MA153TX		Diode	2	
D671 to 676	LNJ406K5YM		LED	6	
D681	LN222RP		LED	1	
D682 to 698	LNJ406K5YM		LED	17	
D701	MA4068LMTA		Diode	1	
D703 to 706	MA151KTX		Diode	4	
D707, 709	MA165TA		Diode	2	
D711	YEAD11ES2T		Diode	1	
D714	MA151WKTX		Diode	1	



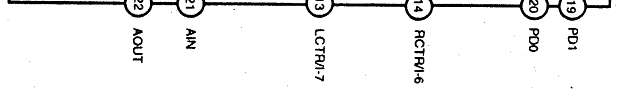
M

Replacement Parts List
Model NO. CQ-LP3720L

NOTES:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice:Components identified by ⚠ mark have special characteristics impotant for safety. When replacing any of these components,use only manufacturer's specified parts.
3. Next to the Ref.No.in the parts list is a location key,to show the general location of the parts shown in the exploded drawing,as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assmbly,and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
5. "MCC"marks in remarks column are indicated supply parts of Matsushita Communication Industrial Corp.of America(MCC).

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
			ICs & TRANSISTORs		
[E-6652A]					
IC101	AN6564NST1		IC	1	
IC151	YEAMPC4574T1		IC	1	
IC201	YEAMCX1980QK		IC	1	
IC202	YEAMPC4574T1		IC	1	
IC203	YEAMSN761026		IC	1	
IC271, 371	AN7190NKLC		IC	2	
IC681	YEAMLC75853		IC	1	
IC701	YEAMH8339F01		IC	1	
IC702	YEAM2950Z5T		IC	1	
IC703	MN1382QTX		IC	1	
IC704	YEAM2951MT		IC	1	
IC705	YEAM93C46EMX		IC	1	
IC707	YEAMBA4900V3		IC	1	
IC708	YEAMLC72146T		IC	1	
IC709	YEAMDA7330BD		IC	1	
IC710	YEAMPD4001T2		IC	1	
IC711	YEAMLA5010M		IC	1	
PA101	YEP0PTA513A0		PCB w/Component	1	
Q101	YEANC144EKTX		Transistor	1	
Q202, 302	YEANC3661TA		Transistor	2	
Q701	YEAN2SK1133T		Transistor	1	
Q702, 703	YEANA114EKTX		Transistor	2	
Q705, 707	YEANC144EKTX		Transistor	2	

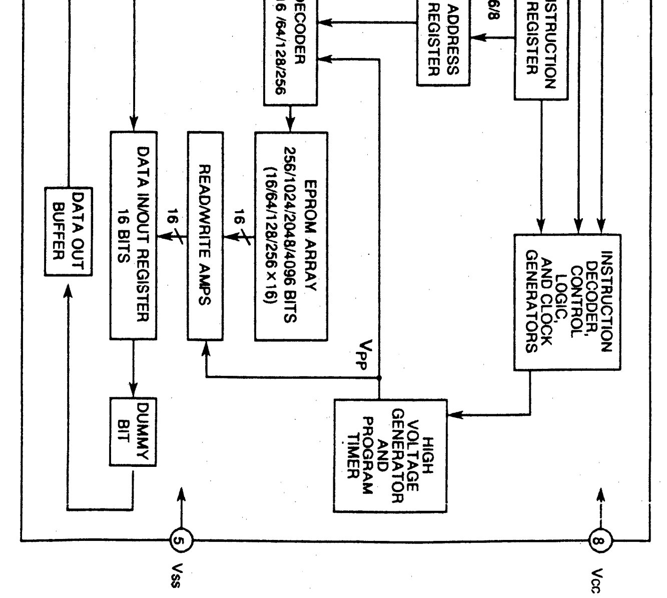


22 AOUT
21 AIN
13 LCTR/I-7
14 RCTR/I-6
20 PD0
19 PD1

MODEL CQ-LP3720L

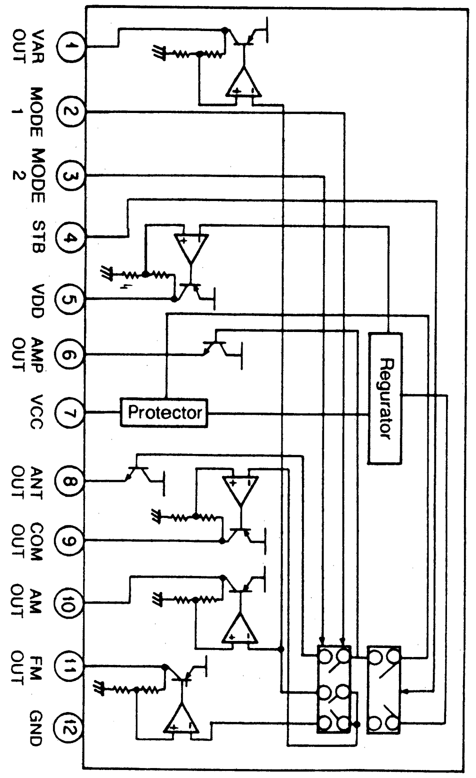
Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
Q710	YEANC114EKTX		Transistor	1	
Q711	YEANHQ1F3PT1		Transistor	1	
Q712	YEANC114EKTX		Transistor	1	
Q713	YEANHQ1F3PT1		Transistor	1	
Q714	YEANC1623T1		Transistor	1	
Q715	2SD1244		Transistor	1	
Q717	YEANC1623T1		Transistor	1	
Q718	YEAN2SA1327		Transistor	1	
Q719	YEANC114EKTX		Transistor	1	
Q720	YEANBP1F3PT		Transistor	1	
Q722	YEANC1623T1		Transistor	1	
Q724	YEAN2SK536TB		Transistor	1	
Q725	YEANC144EKTX		Transistor	1	
			DIODEs		
[E-6652A]					
D151, 152	MA153TX		Diode	2	
D671 to 676	LNJ406K5YM		LED	6	
D681	LN222RP		LED	1	
D682 to 698	LNJ406K5YM		LED	17	
D701	MA4068LMTA		Diode	1	
D703 to 706	MA151KTX		Diode	4	
D707, 709	MA165TA		Diode	2	
D711	YEAD11ES2T		Diode	1	
D714	MA151WKTX		Diode	1	
D715	MA153TX		Diode	1	
D716 to 723	MA3068MTX		Diode	8	
D724	MA165TA		Diode	1	
D801	YEADDSA3A2B		Diode	1	
D802	MA165TA		Diode	1	
D803	MA4082LMTA		Diode	1	
D805	YEADRD27M2T1		Diode	1	
D806, 807	MA8068MTX		Diode	2	

05 YEAM93C46EMX



INSTRUCTION DECODER, CONTROL LOGIC, AND CLOCK GENERATORS
ISTRUCTION REGISTER
6/8
ADDRESS REGISTER
HIGH VOLTAGE GENERATOR AND PROGRAM TIMER
VPP
DECODER
6 /64/128/256
EPROM ARRAY 256/1024/2048/4096 BITS (16/64/128/256 × 16)
16
READ/WRITE AMPS
16
DATA IN/OUT REGISTER 16 BITS
DUMMY BIT
DATA OUT BUFFER
8 Vcc
5 Vss

● IC707 YEAMBA4900V3



Regurator
Protector
1 VAR OUT
2 MODE 1
3 MODE 2
4 STB
5 VDD
6 AMP OUT
7 VCC
8 ANT OUT
9 COM OUT
10 AM OUT
11 FM OUT
12 GND

CAPACITORs

[E-6652A]

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C102	YECUS1H222KX		Ceramic, 0.0022MFD 50WV	1	
C103	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C104	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
C105	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
C106	YECUS1H153KX		Ceramic, 0.015MFD 50WV	1	
C107	YECUS1C154KX		Ceramic, 0.15MFD 16WV	1	
C108	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C110	YECUS1C154KX		Ceramic, 0.15MFD 16WV	1	
C111	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C112	ECA1CM100I		Electrolytic, 10MFD 16WV	1	
C113	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C114, 115	YECUS1H102KX		Ceramic, 0.001MFD 50WV	2	
C118	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C119, 120	YECUS1E223KX		Ceramic, 0.022MFD 25WV	2	
C121	ECA1AM221I		Electrolytic, 220MFD 10WV	1	
C152	YECUS1H122KX		Ceramic, 0.0012MFD 50WV	1	
C153	YECUS1H152KX		Ceramic, 0.0015MFD 50WV	1	
C154	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C155 to 157	YECUS1H151JM		Ceramic, 150PF 50WV	3	
C158	YECUS1H102KX		Ceramic, 0.001MFD 50WV	1	
C159	YECUS1H100DM		Ceramic, 10PF 50WV	1	
C160	YECUS1H102KX		Ceramic, 0.001MFD 50WV	1	
C161	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
C163	ECA1HM4R7I		Electrolytic, 4.7MFD 50WV	1	
C164	YECUS1H151JM		Ceramic, 150PF 50WV	1	
C169	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C201	YECUS1H221JM		Ceramic, 220PF 50WV	1	
C202	ECEA1AKS330I		Electrolytic, 33MFD 10WV	1	
C203	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C204	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C205	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C206	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C207	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
C208	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C209	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C210	ECEA1AKS470I		Electrolytic, 47MFD 10WV	1	
C212	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
C213	YECUS1H472KX		Ceramic, 0.0047MFD 50WV	1	
C214, 215	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	2	
C216	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C217	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C218	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C219	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C221	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	
C222	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C224	YECUS1H822KX		Ceramic, 0.0082MFD 50WV	1	
C225	YECUS1H182KX		Ceramic, 0.0018MFD 50WV	1	
C226	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C227	YECUS1C563KX		Ceramic, 0.056MFD 16WV	1	
C228	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C229	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C230	YECUS1E473KX		Ceramic, 0.047MFD 25WV	1	
C231, 232	YECUS1H103KX		Ceramic, 0.01MFD 50WV	2	
C271	ECA1CM100I		Electrolytic, 10MFD 16WV	1	
C272	YECUS1H471JM		Ceramic, 470PF 50WV	1	
C273, 274	YECUV1C224KX		Ceramic, 0.22MFD 16WV	2	
C275	ECA1CM102B		Electrolytic, 1000MFD 16WV	1	
C276	ECA1CM100I		Electrolytic, 10MFD 16WV	1	
C277	YECUS1H471JM		Ceramic, 470PF 50WV	1	
C278, 279	YECUV1C224KX		Ceramic, 0.22MFD 16WV	2	
C280	ECA1CM102B		Electrolytic, 1000MFD 16WV	1	
C282	ECEA1CKS330B		Electrolytic, 33MFD 16WV	1	
C301	YECUS1H221JM		Ceramic, 220PF 50WV	1	
C302	ECEA1AKS330I		Electrolytic, 33MFD 10WV	1	
C303	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C304	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C305	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C306	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C308	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C309	YECUS1H153KX		Ceramic, 0.015MFD 50WV	1	
C311	YECUS1E333KX		Ceramic, 0.033MFD 25WV	1	
C312	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
C313	YECUS1H472KX		Ceramic, 0.0047MFD 50WV	1	
C314, 315	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	2	
C316	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C317	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C318	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C319	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C321	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	
C322	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C324	YECUS1H822KX		Ceramic, 0.0082MFD 50WV	1	
C325	YECUS1H182KX		Ceramic, 0.0018MFD 50WV	1	
C326	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C327	YECUS1C563KX		Ceramic, 0.056MFD 16WV	1	
C328	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C329	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C330	ECEA1AKS470I		Electrolytic, 47MFD 10WV	1	
C331	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C371	ECA1CM100I		Electrolytic, 10MFD 16WV	1	
C372	YECUS1H471JM		Ceramic, 470PF 50WV	1	
C373, 374	YECUV1C224KX		Ceramic, 0.22MFD 16WV	2	
C375	ECA1CM102B		Electrolytic, 1000MFD 16WV	1	
C376	ECA1CM100I		Electrolytic, 10MFD 16WV	1	
C377	YECUS1H471JM		Ceramic, 470PF 50WV	1	
C378, 379	YECUV1C224KX		Ceramic, 0.22MFD 16WV	2	
C380	ECA1CM102B		Electrolytic, 1000MFD 16WV	1	
C382	ECEA1CKS330B		Electrolytic, 33MFD 16WV	1	
C383	YECUS1H102KX		Ceramic, 0.001MFD 50WV	1	
C602, 603	YECUS1H270JM		Ceramic, 27PF 50WV	2	
C620, 623	YECUS1H101JM		Ceramic, 100PF 50WV	2	
C624 to 626	YECUS1H101JM		Ceramic, 100PF 50WV	3	
C632, 635	YECUS1H101JM		Ceramic, 100PF 50WV	2	
C641 to 643	YECUS1H101JM		Ceramic, 100PF 50WV	3	
C645, 646	YECUS1H101JM		Ceramic, 100PF 50WV	2	
C648, 660	YECUS1H101JM		Ceramic, 100PF 50WV	2	
C666 to 668	YECUS1H101JM		Ceramic, 100PF 50WV	3	
C671, 672	YECUS1H101JM		Ceramic, 100PF 50WV	2	
C681	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C683, 684	YECUS1C104KX		Ceramic, 0.1MFD 16WV	2	
C685	YECUS1H681JM		Ceramic, 680PF 50WV	1	
C706 to 708	YECUS1C104KX		Ceramic, 0.1MFD 16WV	3	
C711	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C712	ECEA0JKS331I		Electrolytic, 330MFD 6.3WV	1	
C713	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C714	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C715	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C716	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C722, 723	ECEA1CKS100I		Electrolytic, 10MFD 16WV	2	
C724	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
C725, 728	ECEA1CKS100I		Electrolytic, 10MFD 16WV	2	
C729	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
C730	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C732	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	
C735	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C736, 737	YECUS1H120JM		Ceramic, 12PF 50WV	2	
C738, 743	YECUS1H101JM		Ceramic, 100PF 50WV	2	
C744 to 746	YECUS1H101JM		Ceramic, 100PF 50WV	3	
C748	YECUS1H222KX		Ceramic, 0.0022MFD 50WV	1	
C749	YECUS1E393KX		Ceramic, 0.039MFD 25WV	1	
C750	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C751	ECEA0JKS470I		Electrolytic, 47MFD 6.3WV	1	
C752	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C753	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
C754	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C755	ECEA1AKS220I		Electrolytic, 22MFD 10WV	1	
C756	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C757	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C758	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C759, 760	YECUS1H220JM		Ceramic, 22PF 50WV	2	
C762	YECUS1H121JM		Ceramic, 120PF 50WV	1	
C763	YECUS1H271JM		Ceramic, 270PF 50WV	1	
C764	ECA1CM101I		Electrolytic, 100MFD 16WV	1	
C767	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C772	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C774	ECEA1CSN100I		Electrolytic, 10MFD 16WV	1	
C776	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C779	ECEA1AKS220I		Electrolytic, 22MFD 10WV	1	
C781 to 784	YECUS1H101JM		Ceramic, 100PF 50WV	4	
C785, 786	ECEA1CKS100I		Electrolytic, 10MFD 16WV	2	
C787	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C788	YECUS1H222KX		Ceramic, 0.0022MFD 50WV	1	
C790	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C801	ECA1HM3R3I		Electrolytic, 3.3MFD 50WV	1	
C802	ECA1CM100I		Electrolytic, 10MFD 16WV	1	
C806	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
CS101	YEXC07T009		Noise Filter	1	
CS801	YECCL55S222T		Noise Filter, 2200PF100WV	1	

RESISTORs

[E-6652A]

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R101	ERJ6GEYJ392		Chip, 3.9k ohms 1/10W	1	
R102	ERJ6GEYJ334		Chip, 330k ohms 1/10W	1	
R103	ERJ6GEYJ153		Chip, 15k ohms 1/10W	1	
R104	ERJ6GEYJ183		Chip, 18k ohms 1/10W	1	
R105	ERJ6GEYJ223		Chip, 22k ohms 1/10W	1	
R106	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R107	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R108, 109	ERJ6GEYJ223		Chip, 22k ohms 1/10W	2	
R111	ERJ6GEYJ683		Chip, 68k ohms 1/10W	1	
R112	ERJ6GEYJ563		Chip, 56k ohms 1/10W	1	
R113	ERJ6GEYJ101		Chip, 100 ohms 1/10W	1	
R114	ERJ6GEYJ153		Chip, 15k ohms 1/10W	1	
R115	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R118	ERJ6GEYJ102		Chip, 1k ohms 1/10W	1	
R153	ERJ6GEYJ222		Chip, 2.2k ohms 1/10W	1	
R154	ERJ6GEYJ561		Chip, 560 ohms 1/10W	1	
R155	ERJ6GEYJ683		Chip, 68k ohms 1/10W	1	
R156	ERJ6GEYJ332		Chip, 3.3k ohms 1/10W	1	
R157	ERJ6GEYJ183		Chip, 18k ohms 1/10W	1	
R158	ERJ6GEYJ102		Chip, 1k ohms 1/10W	1	
R159	ERJ6GEYJ393		Chip, 39k ohms 1/10W	1	
R160, 161	ERJ6GEYJ103		Chip, 10k ohms 1/10W	2	
R162, 163	ERJ6GEYJ393		Chip, 39k ohms 1/10W	2	
R164	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R165	ERJ6GEYJ102		Chip, 1k ohms 1/10W	1	
R166	ERJ6GEYJ224		Chip, 220k ohms 1/10W	1	
R167, 168	ERJ6GEYJ103		Chip, 10k ohms 1/10W	2	
R203	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R204	ERJ6GEYJ222		Chip, 2.2k ohms 1/10W	1	
R205	ERJ6GEYJ223		Chip, 22k ohms 1/10W	1	
R206	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R207	ERJ6GEYJ822		Chip, 8.2k ohms 1/10W	1	
R208	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R214, 215	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	2	
R216	ERJ6GEYJ101		Chip, 100 ohms 1/10W	1	
R217	ERJ6GEYJ272		Chip, 2.7k ohms 1/10W	1	
R218	ERJ6GEYJ822		Chip, 8.2k ohms 1/10W	1	
R219 to 221	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	3	
R223	ERJ6GEYJ151		Chip, 150 ohms 1/10W	1	
R227	ERJ6GEYJ122		Chip, 1.2k ohms 1/10W	1	
R271	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R272, 273	ERJ6GEYJ2R2		Chip, 2.2 ohms 1/10W	2	

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R274	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R275, 276	ERJ6GEYJ2R2		Chip, 2.2 ohms 1/10W	2	
R303	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R304	ERJ6GEYJ222		Chip, 2.2k ohms 1/10W	1	
R305	ERJ6GEYJ183		Chip, 18k ohms 1/10W	1	
R306, 307	ERJ6GEYJ473		Chip, 47k ohms 1/10W	2	
R309	ERJ6GEYJ682		Chip, 6.8k ohms 1/10W	1	
R311	ERJ6GEYJ334		Chip, 330k ohms 1/10W	1	
R312	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R313	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R314, 315	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	2	
R316	ERJ6GEYJ101		Chip, 100 ohms 1/10W	1	
R317	ERJ6GEYJ272		Chip, 2.7k ohms 1/10W	1	
R318	ERJ6GEYJ822		Chip, 8.2k ohms 1/10W	1	
R319 to 321	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	3	
R323	ERJ6GEYJ151		Chip, 150 ohms 1/10W	1	
R327	ERJ6GEYJ122		Chip, 1.2k ohms 1/10W	1	
R371	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R372, 373	ERJ6GEYJ2R2		Chip, 2.2 ohms 1/10W	2	
R374	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R375, 376	ERJ6GEYJ2R2		Chip, 2.2 ohms 1/10W	2	
R377	ERJ6GEYJ124		Chip, 120k ohms 1/10W	1	
R602, 609	ERJ6GEYJ102		Chip, 1k ohms 1/10W	2	
R610, 611	ERJ6GEYJ102		Chip, 1k ohms 1/10W	2	
R613 to 616	ERJ6GEYJ102		Chip, 1k ohms 1/10W	4	
R618 to 627	ERJ6GEYJ102		Chip, 1k ohms 1/10W	10	
R630	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R632 to 637	ERJ6GEYJ102		Chip, 1k ohms 1/10W	6	
R639 to 642	ERJ6GEYJ102		Chip, 1k ohms 1/10W	4	
R643	ERJ6GEYJ562		Chip, 5.6k ohms 1/10W	1	
R648, 649	ERJ6GEYJ102		Chip, 1k ohms 1/10W	2	
R653	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R654, 657	ERJ6GEYJ102		Chip, 1k ohms 1/10W	2	
R658	ERJ6GEYJ223		Chip, 22k ohms 1/10W	1	

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R659 to 662	ERJ6GEYJ102		Chip, 1k ohms 1/10W	4	
R666 to 668	ERJ6GEYJ102		Chip, 1k ohms 1/10W	3	
R678	ERJ6GEYJ102		Chip, 1k ohms 1/10W	1	
R681	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R682	ERJ6GEYJ823		Chip, 82k ohms 1/10W	1	
R683, 684	ERJ8GEYJ331V		Chip, 330 ohms 1/8W	2	
R685	ERJ8GEYJ561V		Chip, 560 ohms 1/8W	1	
R686	ERJ8GEYJ331V		Chip, 330 ohms 1/8W	1	
R687 to 690	ERJ8GEYJ561V		Chip, 560 ohms 1/8W	4	
R691	ERJ8GEYJ331V		Chip, 330 ohms 1/8W	1	
R693, 694	ERJ8GEYJ561V		Chip, 560 ohms 1/8W	2	
R701	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R702	ERJ6GEYJ105		Chip, 1M ohms 1/10W	1	
R704	ERJ6GEYJ474		Chip, 470k ohms 1/10W	1	
R705	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R707	ERJ6GEYJ125		Chip, 1.2M ohms 1/10W	1	
R708, 709	ERJ6GEYJ105		Chip, 1M ohms 1/10W	2	
R710	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R711	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R712 to 715	ERJ6GEYJ103		Chip, 10k ohms 1/10W	4	
R717 to 719	ERJ6GEYJ102		Chip, 1k ohms 1/10W	3	
R721	ERJ6GEYJ470		Chip, 47 ohms 1/10W	1	
R725	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R726	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R727	ERJ6GEYJ332		Chip, 3.3k ohms 1/10W	1	
R728	ERJ6GEYJ222		Chip, 2.2k ohms 1/10W	1	
R730	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R731	ERJ14YJ561H		Chip, 560 ohms 1/4W	1	
R733	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R734	ERJ6GEYJ102		Chip, 1k ohms 1/10W	1	
R739	ERJ6GEYJ100		Chip, 10 ohms 1/10W	1	
R740	ERJ6GEYJ222		Chip, 2.2k ohms 1/10W	1	
R741, 742	ERJ6GEYJ102		Chip, 1k ohms 1/10W	2	
R743	ERJ6GEYJ561		Chip, 560 ohms 1/10W	1	

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R745	ERJ6GEYJ392		Chip, 3.9k ohms 1/10W	1	
R746	ERJ6GEYJ4R7		Chip, 4.7 ohms 1/10W	1	
R747	ERJ6GEYJ561		Chip, 560 ohms 1/10W	1	
R748	ERJ6GEYJ101		Chip, 100 ohms 1/10W	1	
R750	ERJ6GEYJ225V		Chip, 2.2M ohms 1/10W	1	
R751	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R754	ERDS1FJ1R0		Carbon, 1 ohm 1/2W	1	
R755	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R758 to 760	ERJ6GEYJ104		Chip, 100k ohms 1/10W	3	
R763 to 766	ERJ6GEYJ104		Chip, 100k ohms 1/10W	4	
R767	ERJ6GEYJ105		Chip, 1M ohms 1/10W	1	
R768, 769	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	2	
R770	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R771	ERJ6GEYJ182		Chip, 1.8k ohms 1/10W	1	
R772	ERDS1FJ3R3		Carbon, 3.3 ohms 1/2W	1	
R774	ERJ6GEYJ153		Chip, 15k ohms 1/10W	1	
R775	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R776 to 779	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	4	
R783	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R784	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R785	ERDS2TJ221		Carbon, 220 ohms 1/4W	1	
R786	ERJ6GEYJ124		Chip, 120k ohms 1/10W	1	
R787	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R788	ERJ6GEYJ105		Chip, 1M ohms 1/10W	1	
R789	ERG1SJ151E		Metal Oxid, 150 ohms 1W	1	
R790	ERJ6GEYJ104		Chip, 100k ohms 1/10W	1	
R791 to 798	ERJ6GEYJ470		Chip, 47 ohms 1/10W	8	
R799	ERJ6GEYJ472		Chip, 4.7k ohms 1/10W	1	
R801	ERJ6GEYJ102		Chip, 1k ohms 1/10W	1	
R802	ERJ6GEYJ473		Chip, 47k ohms 1/10W	1	
R804	ERJ6GEYJ182		Chip, 1.8k ohms 1/10W	1	
R805	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R806	ERJ6GEYJ222		Chip, 2.2k ohms 1/10W	1	
R807	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	
R808	ERJ6GEYJ470		Chip, 47 ohms 1/10W	1	
R809	ERJ6GEYJ821		Chip, 820 ohms 1/10W	1	
R814	ERJ6GEYJ103		Chip, 10k ohms 1/10W	1	

CONNECTORs

[E-6652A]

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
CN701	YEAETKCF08PS		Connector, 8P	1	
CN702	YEAE5105012		Connector, 12P	1	
CN703	YEAETKCF12PS		Connector, 12P	1	
CN704	YEAETKCF10PS		Connector, 10P	1	
CN705	YEAE0806MXNB		Connector, 8P	1	
CN706	YEAEM2005S		Connector, 5P	1	
CN707	YEAE012282		Connector, 12P	1	
CN801	YEAE012685		Connector, 38P	1	
CP701	YEAETKCF08XS		Connector, 8P	1	
CP702	YEAE5339812		Connector, 12P	1	
CP703	YEAETKCF12XS		Connector, 12P	1	
CP704	YEAETKCF10XS		Connector, 10P	1	
CP707	YEAE012298		Connector, 12P	1	
CN1	YEAE0507MXVS		Connector, 5P	1	

SWITCHEs

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
SW681 to 687	EVQPJU04K		Switch	7	
SW688 to 691	YEAS09280		Switch	4	
VR681	EVQW4B01115B		Push Switch	1	

CRYSTALs

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
XL701	YEXL49U11059		Crystal OSC	1	
XL702	YGXL49U072TA		Crystal OSC	1	
XL703	YGXL49U0433T		Crystal OSC	1	

COILs

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
L101	YELT02C3R3KT		Coil	1	
L701, 702	YELTB2R2RT		Coil	2	
L703	YELT02C2R2KT		Coil	1	
L705	YELTB2R2RT		Coil	1	
L707	YELT02C2R2KT		Coil	1	
L709	YELT02C330KT		Coil	1	
L710	YELT02C2R2KT		Coil	1	
L712	YELT02C330KT		Coil	1	
L714, 716	YELT02C101KT		Coil	2	
L717	YELT02C101KT		Coil	1	
L801	YETQ026X137		Coil	1	

LCD

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
LCD681	YEXDCM1216		LCD	1	

VARIABLE RESISTOR

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
VR201, 301	EVNDXAA00B13		Variable Resistor	2	

ACCESSRIEs

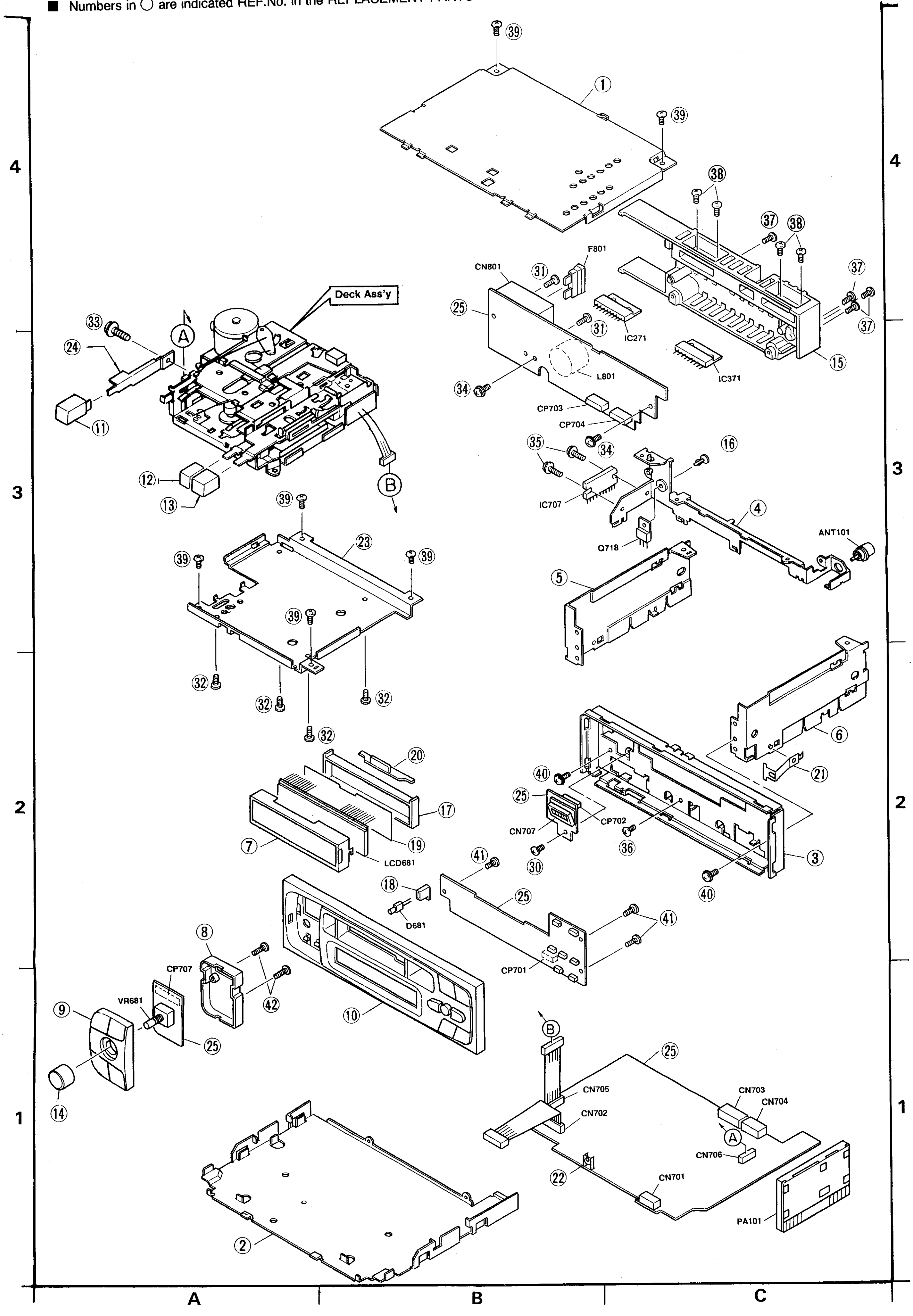
Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
	YEFX9991805		Code Card Box	1	

MISCELLANEOUS

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
Z101	YEAL02007T		Neon Lamp	1	
ANT101	YEAA10087		Antenna Receptacle	1	
F801 ⚠	YEAF02005		Fuse, 10A	1	
1 (4-B)	YEFA031439		Upper Cover	1	
2 (1-B)	YEFA05627		Bottom Cover	1	
3 (2-C)	YEFA07404		Front Plate	1	
4 (3-C)	YEFA08427		Rear Plate	1	
5 (3-C)	YEFA09543		Side Plate(L)	1	
6 (2-C)	YEFA09511AK		Side Plate(R)	1	
7 (2-A)	YEFA131306		Cover, LCD	1	
8 (1-A)	YEFA131283		Cover	1	
9 (1-A)	YGFC025272		Escutcheon Ass'y, Volume	1	
10 (1-B)	YGFC025271		Escutcheon Ass'y	1	
11 (3-A)	YEFE134717		Button,EJECT	1	
12 (3-A)	YEFE134718		Button,FF	1	
13 (3-A)	YEFE134719		Button,REW	1	
14 (1-A)	YEFE07464		Knob	1	
15 (4-C)	YGFF01825		Heat Sink	1	
16 (3-C)	YEFJ05030		Color Rivet	1	
17 (2-B)	YEFK06757		Holder,LCD	1	
18 (2-B)	YEFK06765		Holder,LED	1	
19 (2-B)	YEFV021498		Optical Shade	1	
20 (2-B)	YEFX0011765		Transparent Plate	1	
21 (2-C)	YEFX0052058		Spring	2	
22 (1-B)	YEFX0213797		Bracket,GND	1	
23 (3-A)	YEFX0214176		Bracket,Deck	1	

EXPLODED VIEW (Unit)

- ■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST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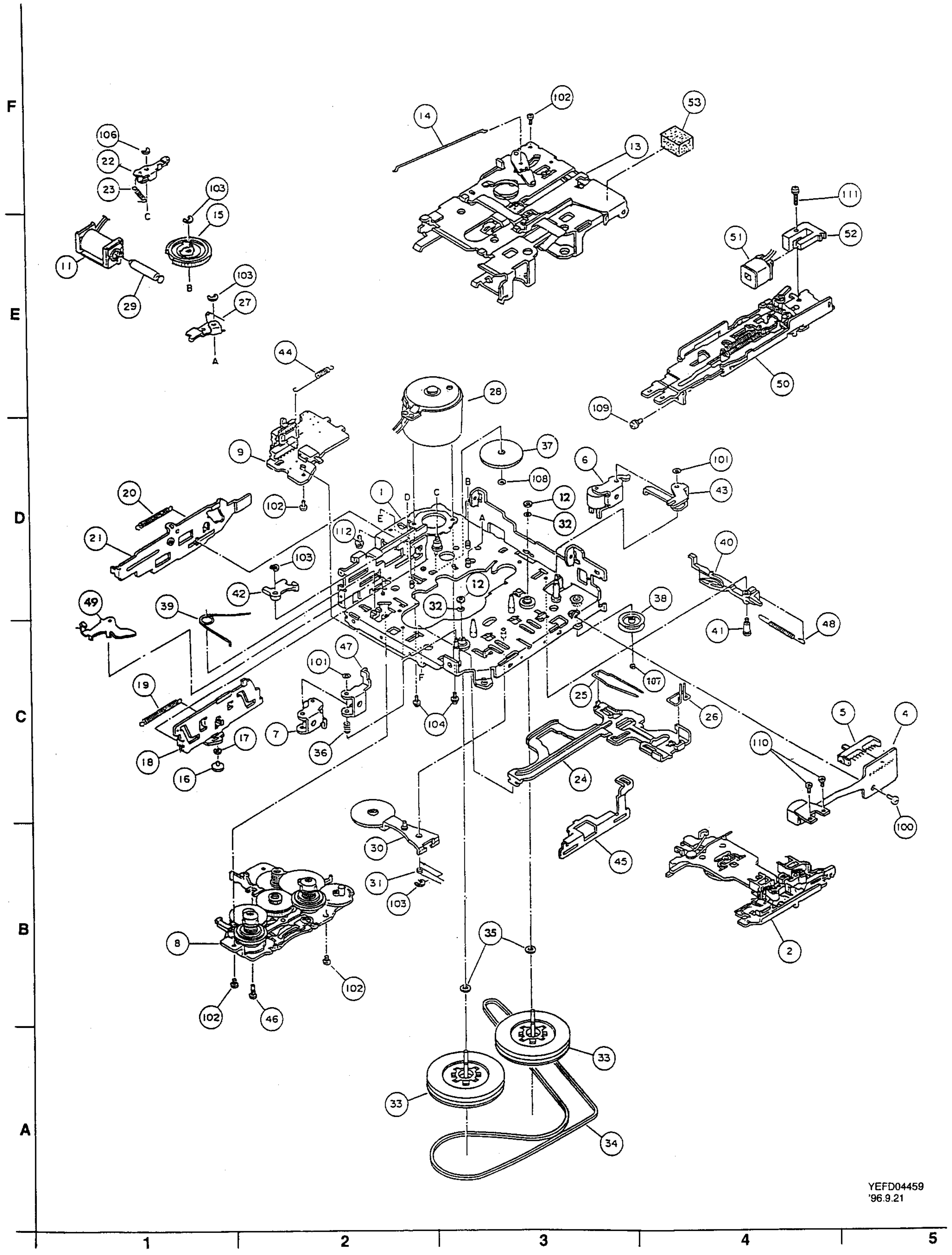
Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
24 (3-A)	YEFX0461837		Lever,EJECT	1	
25	YEP0PT6652Z9		PCB w/Component	1	RTL
30 (2-B)	YEJS02036		Screw	1	
31 (4-B)	YEJS05022		Screw, 2.6mm X 12mm	2	
32 (2-A)(2-B)	YEJS06027		Screw, 3mm X 4mm	4	
33 (3-A)	YEJT03081		Tapping Screw, 2.6mm X 2.5mm	1	
34 (3-B)	YEJT03120		Tapping Screw, 3 mm X 8mm	2	
35 (3-B)	YEJT03009		Tapping Screw, 3mm X 8mm	2	
36 (2-C)	XSB26+5FX		Screw, 2.6mm X 5mm	1	
37 (4-C)	XTB3+10FFX		Tapping Screw, 3mm X 10mm	4	
38 (4-C)	XTB3+6JFX		Tapping Screw, 3mm X 6mm	4	
39	XTB3+6FFX		Tapping Screw, 3mm X 6mm	6	
40 (2-B)(2-C)	XTB3+6FFZ		Tapping Screw, 3mm X 6mm	2	
41 (2-B)(2-C)	XTB2+6GFX		Tapping Screw, 2mm X 6mm	3	
42 (2-A)	XTN2+6GFZ		Tapping Screw, 2mm X 6mm	2	

EXPLODED VIEW (TAPE DECK)

- Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST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YEFD04459
'96.9.21

Ref.No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
			TAPE PLAYER PARTS		YEFD04459 97.7.15
1 (2-D)	YEFA011515		Chassis Ass'y	1	
2 (4-B)	YEP0FX2384		Head Panel Ass'y	1	
4 (4-C)	YEAHP7742CB		Head Ass'y	1	
5 (4-C)	YEAS07161		Slide Switch	1	
6 (3-D)	YEFX249369		Pinch Roller Arm (F) Ass'y	1	
7 (2-C)	YEFX249370		Pinch Roller Arm (R) Ass'y	1	
8 (2-B)	YEP0FX1895		Main Gear Plate Ass'y	1	
9 (2-D)	YEAS07190		Power Switch	1	
11 (1-E)	YEAX01110		K.F Coil	1	
12 (3-D)	YEJW05104		HL Washer	2	
13 (3-F)	YEP0FX2385		Cassette Case Ass'y	1	
14 (3-F)	YEFX005973		P.E Spring	1	
15 (1-E)	YEFX003703		K.F Cam Gear	1	
16 (1-C)	YEFX218255		H.P Roller (A)	1	
17 (1-C)	YEFX218256		H.P Roller (B)	1	
18 (1-C)	YEFX0461699		C.H Holder	1	
19 (1-C)	YEFX0001534		C.H Spring	1	
20 (1-D)	YEFX0051535		Push Lever Spring	1	
21 (1-D)	YEFX0461255		Push Lever	1	
22 (1-F)	YEFX0461635		T.A Plate Ass'y	1	
23 (1-F)	YEFX0051579		T.A Plate Spring	1	
24 (3-C)	YEFX0461636		Main Plate	1	
25 (3-C)	YEFX0051536		M.S Spring	1	
26 (4-C)	YEFX0051537		H.S Spring	1	
27 (1-E)	YEFX0461634		K.F Plate Ass'y	1	
28 (3-E)	YEAK01023		Motor Ass'y	1	
29 (1-E)	YEFX999915		Plunger	1	
30 (2-B)	YEFX0461802		FR Actuator	1	
31 (2-B)	YEFX0052137		FR Spring (M)	1	
32 (3-D)	YEJW05103		HL Washer	2	
33 (3-B)	YEFX213205		F.L Capstan Ass'y	2	
34 (3-B)	YEFR03074		Main Belt	1	
35 (3-B)	YEFX014068		HL Washer	2	
36 (2-C)	YEFX0051539		P.P Spring	1	
37 (3-D)	YEFX003510		Drive Gear	1	
38 (4-D)	YEFX026120		Pulley	1	
39 (1-C)	YEFX0051580		Head Panel Spring	1	
40 (4-D)	YEFX249361		Trigger Arm	1	
41 (4-C)	YEJS06128		Collar Screw	1	
42 (2-D)	YEFX249371		H.P Push Arm	1	
43 (4-D)	YEFX249363		Seesaw Working Plate	1	
44 (2-E)	YEFX0051541		Power Switch Spring	1	
45 (3-B)	YEFX0461803		FR Slide Plate	1	
46 (2-B)	YEJS06129		Collar Screw	1	
47 (2-C)	YEFX249364		HP Return Arm	1	
48 (4-C)	YEFX0051542		T.A Spring	1	
49 (1-C)	YEFX249424		Chrome Sensor	1	
50 (4-E)	YEP0FX1860		FR Lever Ass'y	1	
51 (4-E)	YEAX01105		T Coil Ass'y	1	
52 (4-E)	YEAX01104		T Core	1	
53 (4-F)	YEFS011008		Cushion	1	
100 (4-C)	YEJS06174		Screw Tapping 2mm X 5	1	
101	YEFX014052		Snap Ring	2	
102	YEJT03118		Screw Tapping 2mm X 3	4	
103	YEJE01027		E-Ring	4	
104	YEJS06130		Screw 2mm X 3	2	
106 (1-F)	YEJE01028		E-Ring	1	
107 (4-C)	YEJW05130		Washer	1	
108 (3-D)	YEFX014053		Snap Ring	1	
109 (4-D)	YEJS06131		Screw 2.6mm X 4	1	
110 (4-C)	YEJS06132		Screw 2mm X 4	2	
111 (4-F)	YEJS06133		Screw 2mm X 9	1	
112 (2-D)	YEJS06140		Screw 2.6mm X 3.5	1	